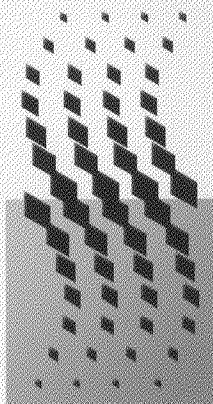




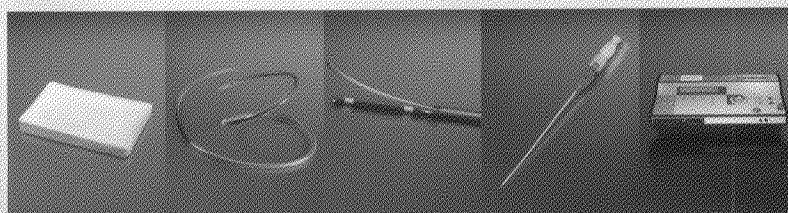
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Vascular
SOLUTIONS

2008
ANNUAL REPORT

Bringing **solutions** to vascular medicine >



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> www.vascularsolutions.com

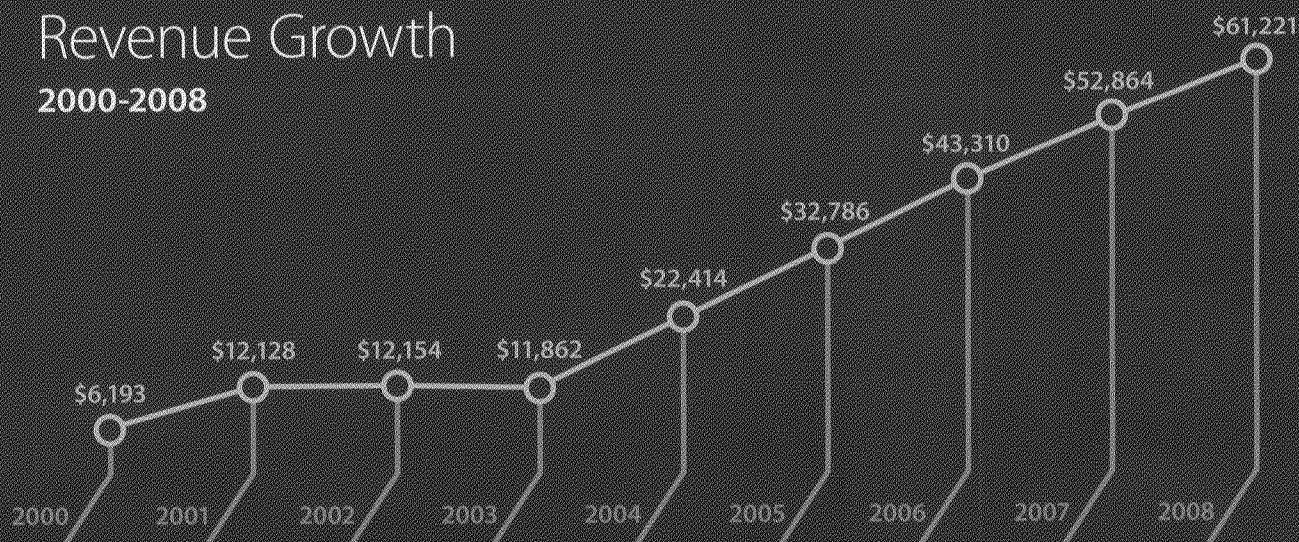
Company Profile

Vascular Solutions is a leading medical device company that delivers proprietary clinical solutions for diagnosing and treating vascular conditions. Our rapidly growing product line consists of innovative devices across established and emerging areas of coronary and peripheral vascular medicine. Cardiologists and radiologists worldwide rely on the quality and clinical effectiveness of Vascular Solutions' unique products.

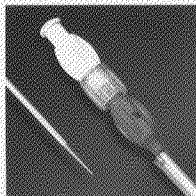
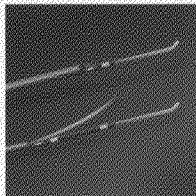
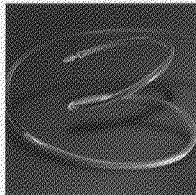
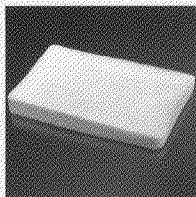
As a vertically integrated company, we quickly generate ideas, create new devices and then deliver the finished products to physicians through our U.S. direct sales force and international distribution network. Our strategy of focusing on underserved clinical needs combined with rapid product development has resulted in an expanding product portfolio. New products introduced since 2003 accounted for more than 90 percent of Vascular Solutions' 2008 net revenue.

Revenue Growth

2000-2008



Vascular Solutions' mission is to continue to grow a profitable, multiple-product medical device company focused on providing physicians with unique clinical solutions to vascular conditions and improving patient's lives.



Products

Vascular Solutions' products are grouped into five categories:

- **Hemostasis Products** for stopping the patient's bleeding following diagnostic and therapeutic vascular procedures
- **Extraction Catheters** to extract blood clots from blood vessels, principally following an acute myocardial infarction (heart attack)
- **Specialty Catheters** designed to meet unique physician requirements in catheters for specialty vascular procedures
- **Access Products** for gaining access and managing the puncture site created in vascular procedures
- **Vein Products** for treating conditions such as varicose veins





Dear Fellow Shareholders

2008 was a very good year for Vascular Solutions. It certainly is unusual timing that our best year as a public company occurred in the same year that our economy experienced the worst year in our generation. But that is what occurred in 2008.

In my shareholder letter last year, I estimated that Vascular Solutions would increase our net revenue to between \$61 million and \$64 million in 2008. Our net revenue grew according to plan to \$61.2 million for the year. Last year, I estimated that we would become consistently profitable in 2008. We generated operating income in excess of \$3 million, with continued excellent cost controls during the year. In addition to these financial improvements during 2008, we also eliminated all of the risk involved in our litigation that was pending at the start of the year. As a result of these developments, and even in the midst of the horrible stock market environment, our stock price responded nicely by increasing 38% during 2008.

I am convinced that 2008 was not an aberration, but instead was the confirmation of the progress that we have made at Vascular Solutions over the last five years and an indication of what is to come. Back in 2003, we were a single product company that faced a severe challenge: our product was not successful and was not easily modified to meet our customers' desires. Instead of continuing with this single product business model, we decided to adjust our focus to develop new clinical niche medical devices for interventional cardiology and interventional radiology. Over the last five years we've worked with physicians to identify needed new products, and we've assembled and grown an employee team that has developed over 40 products for commercialization through our direct U.S. sales force and international distribution network. Some people doubted that our strategy would be successful, but the results in 2008 firmly demonstrate our success

by bringing us from \$12 million in sales in 2003 to \$61 million in sales and profitability in 2008.

Our progress doesn't stop here. Already in the first quarter of 2009 we have launched four new products, with nine additional new products expected to launch before year end. Revenue in all five of our product categories is expected to grow in 2009, and the power of our business model is evident in our ability to drive increasing profitability from each additional sale. By reaching consistent profitability in 2008, we also now have the ability to pursue larger market products, and in 2009 we have two internal projects and one potential distribution opportunity that each address realizable markets in excess of \$100 million annually. We believe that our markets and products are substantially insulated from the effects of the economy, which is important in today's environment.

Our highest sales product line in 2008 was our hemostat products, with \$23.5 million in net revenue. Hemostat products utilize the biological activity of thrombin to create a variety of shelf stable blood clotting medical devices. Our main product in this category is the D-Stat Dry bandage, which competes in the topical patch market that experienced increased competition in 2008. These competitive pressures are expected to lighten in 2009 with the discontinuation of a major competitor's product, and we believe the launch of our new Wrap version of the D-Stat Dry in the first quarter of 2009 will result in a resumption of sales growth, reversing the 5% decline in revenue we experienced in hemostat products in 2008.

Our second highest sales product category in 2008 was our extraction catheters, primarily the Pronto V3 aspiration catheter that is used to extract soft thrombus from within blood vessels. Net sales of extraction catheters totaled \$15.0 million in 2008,



UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2008

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Mail Processing
Section

Commission file number: 0-27605

MAR 24 2009

VASCULAR SOLUTIONS, INC.

(Exact name of registrant as specified in its charter)

Washington, DC

101

Minnesota

(State or other jurisdiction of incorporation or organization)

41-1859679

(IRS Employer Identification No.)

6464 Sycamore Court

Minneapolis, Minnesota 55369

(Address of principal executive offices, including zip code)

(763) 656-4300

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class:

Name of each exchange on which registered:

Common Stock, par value \$.01 per share

The NASDAQ Global Market

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (section 229.406 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold on June 30, 2008 was \$99,394,003.

As of January 30, 2009, the number of shares outstanding of the registrant's common stock was 16,184,570.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Proxy Statement for its 2009 Annual Meeting of Shareholders to be held on April 21, 2009 are incorporated by reference in Part III of this Annual Report on Form 10-K.

PART I

ITEM 1. BUSINESS

Overview

Vascular Solutions, Inc. (we, us or Vascular) is a medical device company focused on bringing clinically advanced solutions to interventional cardiologists and interventional radiologists worldwide. We were incorporated in the state of Minnesota in December 1996, and we began operations in February 1997. Our main product lines consist of the following:

- Hemostat (blood clotting) products, principally consisting of the D-Stat Dry™ hemostat, a topical thrombin-based pad with a bandage used to control surface bleeding, and the D-Stat® Flowable, a thick yet flowable thrombin-based mixture for preventing bleeding in subcutaneous pockets,
- Extraction catheters, principally consisting of the Pronto® V3 extraction catheter, a mechanical system for the removal of soft thrombus from arteries,
- Vein products, principally consisting of the Vari-Lase® endovenous laser, a laser and procedure kit used for the treatment of varicose veins,
- Specialty catheters, consisting of a variety of catheters for clinical niches including the Langston® dual lumen catheters, Twin-Pass® dual access catheters, Gandras™ catheters, and Gopher™ support catheter, and
- Access products, principally consisting of micro-introducer kits, Micro Elite™ and Expro Elite™ snares, the Guardian® hemostasis valve, and guidewires used in connection with percutaneous access to the vasculature.

In 2000 we received FDA clearance for our first product, the Duett™ sealing device, which is used to seal the puncture site following catheterization procedures. In 2001, due to competitive developments in the sealing device market, we made the strategic decision to develop additional products and de-emphasize the promotion of our Duett sealing device. We have grown from net revenue of \$6.2 million in 2000 solely from the Duett device to net revenue of \$61.2 million in 2008, with 98% of our 2008 net revenue coming from products other than the Duett device. This increase in revenue represents a compound annual growth rate of 33% and was driven by our commitment to the research and development of multiple new devices to diagnose and treat existing and new vascular conditions.

As a vertically-integrated medical device company, we generate ideas and create new interventional medical devices and then deliver these products directly to the physician through our direct domestic sales force and our international distribution network. We currently have in development several additional products that leverage our existing infrastructure to bring additional solutions to the interventional cardiologist and interventional radiologist.

Interventional Cardiology and Interventional Radiology Industry Background

Over 60 million Americans have one or more types of cardiovascular disease—diseases of the heart and blood vessels. Cardiovascular disease is the number one cause of death in the United States and is replacing infectious disease as the world's pre-eminent health risk. Advances in medicine have enabled physicians to perform an increasing number of diagnostic and therapeutic treatments of cardiovascular disease using minimally invasive methods, such as catheters placed inside the arteries, instead of highly invasive open surgery. Cardiologists and radiologists use diagnostic procedures, such as angiography, to confirm, and interventional procedures, such as angioplasty and stenting, to treat diseases of the coronary and peripheral arteries. Based on industry statistics, we estimate that cardiologists and radiologists performed over nine million diagnostic and interventional catheterization procedures worldwide in 2008. The number of catheterization procedures performed is expected to continue to grow as the incidence of cardiovascular

disease continues to increase and the diagnosis and treatment of cardiovascular disease expands worldwide. The worldwide market for interventional medical devices in 2008 exceeded \$5 billion.

Each angiographic procedure using a catheter requires a puncture in an artery, usually the femoral artery in the groin area and sometimes the radial artery in the wrist of the patient to gain access for the catheter. The catheter then is deployed through an introducer sheath and into the vessel to be diagnosed or treated. Upon completion of the procedure and removal of the catheter, the physician must seal this puncture in the artery and the tissue tract that leads from the skin surface to the artery to stop bleeding.

Hemostat Products

Our hemostat products utilize thrombin, a powerful bovine-derived blood clotting protein, to deliver a rapid seal of bleeding with a variety of shelf-stable product configurations. Through internal development we developed a proprietary manufacturing process to terminally sterilize our thrombin-based hemostats, which has resulted in our ability to create unique advantages in storage, shipping, preparation and application of our hemostat products.

Our most popular hemostat product is the D-Stat Dry hemostat bandage. In September 2003 we received regulatory clearance and commenced sales of our D-Stat Dry hemostat bandage in the United States and international markets. The D-Stat Dry hemostat bandage is a version of our proprietary blood clotting substance that is lyophilized (freeze-dried) into a gauze pad and combined with an adhesive bandage for application. The D-Stat Dry is used as an adjunct to manual compression for managing bleeding after catheterization procedures.

The traditional method for sealing the puncture site after catheterization procedures has been a manual process whereby a healthcare professional applies direct pressure to the puncture site, sometimes using a sand bag or a large C-clamp, for 20 minutes to an hour in order to form a blood clot. The healthcare professional then monitors the patient, who must remain immobile in order to prevent dislodging of the clot, for an additional two to 24 hours. Patients subjected to manual compression generally experience significant pain and discomfort during compression of the puncture site and during the period in which they are required to be immobile. Many patients report that this pain is the most uncomfortable aspect of the catheterization procedure. In addition, patients can develop a substantial coagulated mass of blood, or hematoma, around the puncture site. Finally, the need for healthcare personnel to provide compression and the use of hospital beds during the recovery period results in substantial costs to the institution, which, under virtually all current healthcare payment systems, are not separately reimbursed.

Until 1996, manual compression was used following virtually all catheterization procedures. In late 1995, the first vascular sealing device which did not rely on compression was introduced in the United States. In addition to invasive (below the skin surface) sealing devices, starting in 2000, non-invasive “patches” began to be used as an assist to manual compression following catheterizations. Non-invasive patches are used by physicians who (principally due to cost, complexity or risk of complications) do not wish to use invasive sealing devices, and for those patients who are contra-indicated for an invasive sealing device. Based on the number of catheterization procedures performed annually by cardiologists and radiologists, industry sources report that the total market opportunity for vascular sealing devices (invasive and non-invasive) is more than \$1 billion annually.

We completed a 376-patient, five center randomized clinical study that demonstrated a 50% reduction in the median time-to-hemostasis when using the D-Stat Dry bandage compared to simple manual compression. In the third quarter of 2006 we received Food and Drug Administration (FDA) clearance of our claim that the D-Stat Dry reduces the time-to-hemostasis in diagnostic catheterizations. In the first quarter of 2008 we received FDA clearance and began selling two new versions of the original D-Stat Dry bandage. The first new version, the D-Stat[®] Dry Clear hemostatic bandage, is packaged with a clear bandage which allows for better visibility of the site while the bandage is in place. The second new version, Thrombix[®], uses a lower cost manufacturing process which offers price flexibility within the product line. We believe that the market

for hemostat pads following catheterization procedures has grown substantially since the first competitive patch was introduced in 2000, with a market size greater than \$50 million in 2008.

We have developed additional configurations of our hemostat technology for specialized medical procedures. Our D-Stat Radial hemostat band is a version of the D-Stat Dry that includes a compression band to allow it to be applied over the radial artery in the wrist. In approximately 5% of all catheterizations the radial artery in the wrist instead of the femoral artery in the groin is used to gain arterial access. In these cases using the radial artery, a variety of compression splints and tapes have been used for controlling bleeding following the procedure. The D-Stat Radial is the first device that contains an active blood clotting agent together with a compression collar for this purpose. We received regulatory clearance for the D-Stat Radial hemostat band in September 2003, and made manufacturing improvements to the product before launching it in the United States in early 2004.

Our D-Stat Flowable hemostat, which we began selling worldwide in February 2002, is a thick yet flowable mixture of collagen, thrombin and diluent that can be delivered topically and into voids and open spaces to control active bleeding. The D-Stat Flowable hemostat can be used in a wide variety of procedures as an adjunct to hemostasis. In December 2006 we received FDA approval of our premarket approval (PMA) supplement for the use of D-Stat Flowable in the prepectoral pockets created in pacemaker and implantable cardioverter defibrillator (ICD) implants. Our PMA supplement was supported by the results of our 269-patient "Pocket Protector" clinical study that demonstrated a 48% reduction in the incidence of clinically relevant hematomas through the use of D-Stat Flowable compared to the standard of care. We estimate that the U.S. market opportunity for this prepectoral pocket indication is greater than 100,000 procedures or \$10 million annually.

Our original Duett sealing device is designed to provide a complete seal of the puncture site following catheterization procedures such as angiography, angioplasty and stenting. The Duett sealing device combines an easy-to-use balloon catheter delivery mechanism with a biological procoagulant mixture, which we believe offers advantages over both manual compression and competitive vascular sealing devices. We began selling our Duett sealing device in Europe in February 1998 and in the United States in June 2000. In the fourth quarter of 2001 we introduced the Diagnostic Duett version of the Duett sealing device, which utilizes a lower dose of procoagulant for the less-challenging diagnostic subset of catheterization procedures.

At the end of the first quarter of 2004 we received regulatory clearance in the United States for the Thrombi-Pad™ trauma bandage. The Thrombi-Pad trauma bandage is a larger-sized version of our D-Stat Dry designed for use in trauma indications, does not require mixing or special storage requirements and can be quickly applied to even severely bleeding wounds. During the second quarter of 2005 we received regulatory clearance in the United States for the Thrombi-Gel® hemostatic foam. The Thrombi-Gel hemostatic product contains a gelatin foam pad (instead of the non-resorbable gauze pad in the D-Stat Dry) to provide a unique, premixed, sterile, gelatin/thrombin hemostat. An additional version of the Thrombi-Gel in development is the Thrombi-Paste™, which adds a liquid to make a thick thrombin-based gel. Because the Thrombi-Pad, Thrombi-Gel and Thrombi-Paste products are expected to be utilized outside of our core market of interventional procedures, we have licensed the distribution of these products to King Pharmaceuticals, Inc., as described under "Agreements with King Pharmaceuticals, Inc." below.

Extraction Catheters

Our Pronto products consist of a catheter with a proprietary distal tip and large extraction lumen that can be delivered into arteries to mechanically remove blood clots using simple vacuum suction. The Pronto extraction catheter was initially developed by Dr. Pedro Silva of Milan, Italy, who exclusively licensed the design to us in 2002. We received CE mark approval and commenced international sales of the Pronto in August 2003, and received FDA clearance in December 2003 and commenced sales in the United States in early 2004. In the fourth quarter of 2005 we launched the third generation design of the Pronto, named the Pronto V3. The V3 version of the Pronto resulted in a substantial increase in Pronto sales in 2006. The FDA

cleared the Pronto V3 catheter for specific use within the coronary system in December 2006. We believe that the market size for the removal of soft thrombus is greater than \$100 million per year worldwide.

We have developed four additional versions of extraction catheters -- the Pronto-Short, Pronto .035", Pronto LP and QXT™. The Pronto-Short is a shorter and larger version designed for use in clotted dialysis grafts that was launched in August 2005. The Pronto 035 is a much larger version designed for use in large vessel peripheral indications that was launched in August 2007. The Pronto LP is a low profile version that is designed for use in smaller vessels and was launched in January 2008. The QXT is a low-cost version that is designed to be sold in certain international markets and was launched in March 2008.

Vein Products

Our Vari-Lase endovenous laser products consist of a laser console, procedure kits and accessories used in the treatment of reflux of the great saphenous vein, commonly referred to as varicose veins. More than one million people in the United States seek treatment each year for varicose veins. Left untreated, varicose veins can result in serious clinical consequences, including limited mobility and venous stasis ulcers. Historically, an invasive surgical procedure known as vein stripping was the only treatment for severe varicose veins. While vein stripping is still performed, since 2002 a non-surgical procedure using endovenous laser energy to treat and close the diseased vein has become a preferred alternative. Recent clinical data on endovenous laser therapy has demonstrated excellent clinical results and outstanding patient satisfaction. During the fourth quarter of 2004 the Center for Medicare and Medicaid Services (CMS) published the Medicare Physicians Fee Schedule which established favorable reimbursement rates for the endovenous laser procedure starting January 1, 2005. Private insurance companies also have issued reimbursement coverage decisions resulting in more physicians adding endovenous laser therapy to their practice. We believe the current U.S. market size for treating varicose veins using endovenous therapy is greater than \$140 million per year.

The first product we launched in our vein product line was our Vari-Lase® procedure kit in July 2003 in the United States. Our Vari-Lase procedure kit is custom-designed for the endovenous procedure, with features supporting ease-of-use and safety, and is compatible with many of the competitive laser consoles used in this procedure. In December 2003, we received FDA clearance for our Vari-Lase laser console, which is manufactured to our specifications by MedArt, a leading Denmark-based medical laser manufacturer. Since 2004 we have continued our expansion by adding several accessory items to our vein product line. In April 2007 we launched the Vari-Lase Bright Tip™ fiber which utilizes a ceramic sleeve to the distal tip of the laser fiber to provide improved ultrasound visibility and prevent contact between the energy-transmitting fiber tip and the vein wall during the application of laser energy.

Specialty Catheters

Specialty catheters consist of a variety of catheters designed to perform unique functions within clinical niches in interventional medicine. At the end of the third quarter of 2004 we received regulatory clearance in the United States for the Langston dual lumen pigtail catheter. The Langston catheter is used for the precise measurement of intravascular pressure gradients, primarily measured to diagnose aortic valve stenosis. We believe our Langston catheter is the only dual lumen pigtail catheter on the U.S. market that can be used for this intended indication. We believe the U.S. market opportunity for the Langston catheter product line is \$10 million annually.

During 2006 we launched both the Twin-Pass dual access catheter and Skyway® support catheter. The Twin-Pass is a two lumen catheter designed to be used in conjunction with steerable guidewires to access discrete regions of the coronary and peripheral arterial vasculature and for use during procedures utilizing two guidewires. The Skyway support catheter can be used in the support of guidewires during difficult lesion crossing procedures and in the exchange of guide wires in an interventional procedure. We believe that both of these products address market opportunities of between \$1 million and \$5 million annually within interventional cardiology.

In July of 2007 we launched the Gopher™ support catheter. The Gopher catheter is designed to assist in the passage of interventional devices through arterial lesions by utilizing a unique rotational force. We believe the market opportunity of the Gopher is in excess of \$2 million per year.

In March of 2008 we launched the Gandras catheter. The Gandras catheter is designed to be used in the catheterization of uterine and pelvic arteries. It has a unique design that provides the benefits of a microcatheter without the added cost.

Access Products

Access products are used to gain percutaneous access to the vasculature for a wide variety of arterial and venous procedures. We started selling access products in July 2003. Our access products include a full line of micro-introducer kits and a variety of specialty guidewires.

During 2007 we entered into an agreement with Zerusa Limited, whereby we agreed to act as the exclusive U.S. distributor of Zerusa's Guardian hemostatic valve. The Guardian hemostatic valve is a valve used in catheterization procedures to allow the placement of multiple devices simultaneously in the artery with a unique push-button operation that is designed to minimize blood loss.

During 2008 we entered into an agreement with Radius Medical to distribute their Micro Elite and Expro Snares within the United States. The Elite snares feature a highly torqueable shaft design for control and maneuverability when accessing distal targets. We believe the market opportunity for the Micro Elite Snare is in excess of \$2 million per year and the market opportunity for the Expro Snares is in excess of \$5 million per year.

In May of 2008 we launched the InnerChange™ micro-introducer catheter. The InnerChange micro-introducer catheter is a micro-introducer kit that can also be utilized as a sheathless catheter.

Other Products

We have developed and offer several additional clinical niche products, and additional products in international markets which are not yet approved in the United States. During the second quarter of 2002 we acquired the Acolysis® ultrasound thrombolysis system. The Acolysis system uses ultrasound energy generated by the Acolysis controller that is delivered by the disposable Acolysis probe to lyse blood clots and plaque within the artery. The Acolysis controller and probes are sold only in international markets, where it has been sold principally for the treatment of peripheral vascular disease.

The amount of total revenue contributed by each of our product lines and by geographic areas for the last three fiscal years is set forth in Notes 2 and 11 to our Consolidated Financial Statements in Item 8 of Part II of this Form 10-K.

Agreements with King Pharmaceuticals, Inc.

In January 2007, we entered into three agreements with King Pharmaceuticals, Inc., consisting of a License Agreement, a Device Supply Agreement and a Thrombin-JMI® Supply Agreement.

The effect of these three agreements was to forge a new relationship between us and King having essentially three components. First, King is selling through its direct sales force, and we are manufacturing and supplying to King, our Thrombi-Pad trauma bandage and Thrombi-Gel hemostat products (and in the future our Thrombi-Paste hemostat product which is in development). Second, we are working with King to develop additional hemostat products to be sold by King outside of our direct sales force's call point of cardiac, peripheral and electrophysiology catheterization laboratories. Third, King is selling Thrombin-JMI® to us for use in the manufacture of our hemostatic products under a 10-year, fixed price arrangement.

Under the terms of the License Agreement, we granted to King an exclusive, royalty-free, fully-paid up, perpetual, worldwide right and license to all of our patents and know-how relating to the development, manufacture, use, sale, importation or other exploitation of our Thrombi-Pad trauma bandage, Thrombi-Gel 10, 40 and 100 hemostats, Thrombi-Paste hemostat (collectively, the “Products”) and all future medical devices having application in the Field (as defined below) and intended to produce hemostasis by accelerating the clotting process of blood (a “hemostat device”). The “Field” is defined as all applications of hemostat devices in all areas other than catheterization laboratories (cardiac and peripheral), electrophysiology laboratories and holding and recovery rooms for such laboratories. Upon execution of the License Agreement, King paid us a one-time payment of \$6.0 million. No other payments are due from King to us under the License Agreement. The term of the License Agreement commenced on January 9, 2007 and continues until the later of the expiration of each licensed patent or King’s relinquishment of its license rights under the licensed know-how.

Under the terms of the Device Supply Agreement, we agreed to manufacture and supply the Products to King and King agreed to purchase the Products from us for King’s exclusive commercialization, distribution, sale and use of the Products in the Field. King does not have any minimum purchase obligations under the Device Supply Agreement. The Device Supply Agreement does not limit our ability to manufacture the Products for our own commercialization, distribution, sale and use outside of the Field. The transfer prices are fixed for each Product under the Device Supply Agreement and are adjusted for cost and inflation increases according to a market index. Upon the first commercial sale by King of a Thrombi-Gel hemostat (which occurred in May 2007), King was required to make (and did make) a one-time, non-refundable milestone payment to us of \$1.0 million. Upon the first commercial sale by King of a Thrombi-Paste hemostat product, which we anticipate will be in 2010, King will be required to make another one-time, non-refundable milestone payment to us of \$1.0 million. We have agreed to continue to perform the regulatory work necessary to obtain surgical approvals for the Thrombi-Gel and Thrombi-Paste products, and King has agreed to reimburse us for our expenses in obtaining these approvals. If, after undertaking and completing the development and regulatory plans with respect to the Thrombi-Gel and Thrombi-Paste products, such development and regulatory efforts have not resulted in regulatory approval for surgical use, we have agreed to make a one-time, non-creditable, non-refundable payment of \$2.5 million to King if the FDA has not approved the Thrombi-Gel product for surgical use, and an additional \$2.5 million if the FDA has not approved the Thrombi-Paste product for surgical use. We believe the probability of making these one-time payments to King is remote. Under the Device Supply Agreement, King also has certain rights of first refusal with respect to any hemostatic devices for use in the Field that we may develop on our own or at the request of King. The Device Supply Agreement has an initial term of 10 years, followed by successive automatic one-year extensions, subject to termination by the parties under certain circumstances, including termination by King without cause anytime after the third anniversary of its execution upon two years prior written notice to us.

Under the terms of the Thrombin-JMI[®] Supply Agreement, King agreed to manufacture and supply thrombin to us on a non-exclusive basis. King agreed to supply us with such quantity of thrombin as we may order for use in devices not intended for sale by King in the Field at a fixed price throughout the term of the Thrombin-JMI[®] Supply Agreement as adjusted for inflation, variations in potency and other factors. King also agreed to provide thrombin to us under the Thrombin-JMI[®] Supply Agreement at no cost for incorporation into Products and hemostat devices intended for sale in the Field by King. The Thrombin-JMI[®] Supply Agreement has an initial term of 10 years, followed by successive automatic one-year extensions, subject to termination by the parties under certain circumstances, including (1) termination by King without cause anytime after the fifth anniversary of its execution upon five years prior written notice to us and (2) termination by us without cause anytime after the fifth anniversary of its execution upon five years prior written notice to King provided that the Device Supply Agreement has expired on its terms or the parties have agreed to terminate it.

Business Strategy

Our primary objective is to establish ourselves as a leading supplier of clinically superior medical devices for substantial, unique opportunities within interventional medicine. The key steps in achieving our primary objective are the following:

- *Maintain and Improve our Clinically-Oriented Direct Sales Force in the United States.* During the third quarter of 2000 we commenced sales of our products in the United States through a direct sales force of clinically trained account managers who sell and train interventional cardiologists, radiologists and catheterization laboratory personnel on the use of our products. As our product lines have increased, we have increased the size of our sales force to 89 at the end of 2008, which provides substantially complete geographic coverage of the United States.
- *Expand our Existing Products to Our Existing Market.* Starting in 2003 we have launched multiple new products in the United States through our direct sales force to our existing markets. Pursuing this multiple product strategy has generated material sales growth, and we believe that each of our current product lines has the potential to generate continued sales growth during 2009 and beyond.
- *Develop New Devices to be Sold Through our Direct Sales Force to our Existing Customers.* We intend to continue to leverage our direct sales force by bringing additional products to the interventional physician. During 2009 we have plans to launch 10 new products in the United States, with additional products in development for launch in following years.
- *Explore Corporate Partnerships for the Distribution of Products Through our Direct Sales Force to our Existing Customers.* We intend to continue to leverage our direct sales force by bringing additional products to the interventional physician through distribution agreements. Over the past two years we have partnered with Radius Medical and Zerusa Limited to distribute their products in the United States. We are in discussions with additional potential distribution partners and expect to distribute additional products as they become available.
- *Explore Corporate Relationships to Augment our Direct Sales Force.* In markets for our products beyond the interventional physician (such as occurred with our Thrombi-Gel, Thrombi-Paste and Thrombi-Pad products) and in other situations where synergistic sales can result, we intend to enter into corporate relationships to broaden our products' reach and increase our revenues without distracting our direct sales force.

Sales, Marketing and Distribution

In the third quarter of 2000 we commenced sales of our Duett sealing device in the United States through our direct sales organization. As of December 31, 2008, our direct sales force consisted of approximately 89 employees who sell our entire line of interventional products. We believe that the majority of interventional catheterization procedures in the United States are performed in high volume catheterization laboratories, and that these institutions can be served by our focused direct sales force.

As part of our sales strategy, our sales force is clinically trained and is able to train physicians and other healthcare personnel on the use of our products. We believe that effective training is a key factor in encouraging physicians to use interventional medical devices. We have created, and will continue to work to improve, an in-the-field training program for the use of all of our products. We also develop and maintain close working relationships with our customers to continue to receive input concerning our product development plans.

We are focused on building market awareness and acceptance of our products. Our marketing department provides a wide range of programs, materials and events that support our sales force. These

include product training, conference and trade show appearances and sales literature and promotional materials.

Our international sales and marketing strategy has been to sell to interventional cardiologists and interventional radiologists through established independent distributors in major international markets, subject to required regulatory approvals. In Germany, we created a wholly-owned subsidiary to sell directly to customers in the German market beginning in the fourth quarter of 2000. In the first quarter of 2008 we transitioned our sales in Germany to an independent distributor and received an up-front fee and closed our German subsidiary. We have entered into multi-year written distribution agreements with each of our independent distributors, and we ship our products to these distributors upon receipt of purchase orders. Each of our independent distributors has the exclusive right to sell our products within a defined territory. These distributors also market other medical products, although they have agreed not to sell directly competitive products. Our independent distributors purchase our products from us at a discount from list price and resell the device to hospitals and clinics. Sales to international distributors are denominated in United States dollars, with the exception of the Germany distributor where sales are denominated in Euros. The end-user price is determined by the distributor and varies from country to country.

New Product Development

Our research and development staff is currently focused on developing new products to sell to our existing customer base through our direct sales force and on developing next generation versions of our existing products. We incurred expenses of \$6,333,000 in 2008, \$5,481,000 in 2007, and \$4,578,000 in 2006 for research and development activities. To further leverage our efficiencies, our research and development group continues to develop in-house capabilities to manufacture some of the components currently produced by outside vendors.

In addition to our normal research and development expenses, we incurred \$-0- in 2008, \$147,000 in 2007, and \$2,802,000 in 2006 in thrombin qualification expenses relating to our project to qualify a second source of thrombin. We do not expect to incur additional expenses on the thrombin qualification project in 2009.

We expect our research and development activities to continue to expand to include evaluation of new concepts and products for the interventional cardiology and interventional radiology field. We believe that there are many potential new interventional products that would fit within the development, clinical, manufacturing and distribution network we have created for our existing products.

Manufacturing

We manufacture our products in our facilities located in the suburbs of Minneapolis, Minnesota. The catheter manufacturing and packaging processes occur under a controlled clean room environment. Our quality system, manufacturing facilities and processes have been certified to be compliant with the applicable European standards EN46001 and the succeeding EN13485 since July 1998. Our quality system was most recently audited by the FDA in October 2005 with no deficiencies noted.

We purchase components from various suppliers and rely on single sources for several parts of our products. We purchase our United States product requirements for thrombin (a component in the Duett and in all of the D-Stat products) under the Thrombin-JMI[®] Supply Agreement with King Pharmaceuticals, Inc. We purchase our International product requirements for thrombin under a supply agreement with Sigma-Aldrich Fine Chemicals, an operating division of Sigma-Aldrich, Inc. To date, we have not experienced any significant adverse effects resulting from shortages of components.

The manufacture and sale of our products entails significant risk of product liability claims. Although we have product liability insurance coverage in an amount which we consider reasonable, it may not be adequate to cover potential claims. Any product liability claims asserted against us could result in costly

litigation, reduced sales and significant liabilities and divert the attention of our technical and management personnel away from the development and marketing of our products for significant periods of time.

Competition

Competition in the interventional medical device industry is intense and dominated by very large and experienced companies such as Medtronic Inc., Abbott Laboratories, Johnson & Johnson and Boston Scientific Corporation. We compete on the basis of our clinically differentiated products and focused opportunities within this interventional medical device market.

Our D-Stat Dry hemostatic bandage competes in the noninvasive topical patch market segment of sealing devices. These patches are applied directly over the puncture site and held in place with adjunctive manual compression for a period of 10-20 minutes. These patches include:

- SyvekPatch[®], manufactured and marketed by Marine Polymer Technologies, Inc.
- HemCon[®], distributed by Cardinal Health, Inc., manufactured by Hemcon Medical Technologies, Inc.
- Closur-P.A.D.[™], manufactured and marketed by Scion Cardiovascular, Inc.

The Pronto extraction catheter competes in the market segment for removal of thrombus from the arterial system. There are many companies that are selling or have developed products in this segment, including Possis Medical Inc., Medtronic Inc. and Spectranetics Corporation.

We are aware of many companies that sell a product for the endovenous laser treatment of varicose veins, including AngioDynamics Inc., biolitec, Dornier MedTech, and CoolTouch. Each of the competitive products contains similar types of components for performing endovenous laser therapy but differ in procedural training, laser wavelength, custom-designed features and customer support. In addition, VNUS[®] Medical Technologies (VNUS) sells an alternative endovenous procedure that utilizes radiofrequency as opposed to laser energy for the treatment of varicose veins.

Our Duett sealing device principally competes with several vascular sealing devices and manual compression. The two principal competitive vascular sealing devices are:

- The Angio-Seal[®] device, sold by St. Jude Medical, Inc. and developed by Kensey Nash Corporation, which seals the puncture site through the use of a collagen plug on the outside of the artery connected by a suture to a biodegradable anchor which is inserted into the artery.
- The StarClose[™] and Closer[™] devices, sold by Perclose, Inc., a subsidiary of Abbott Laboratories which seal the puncture site through the use of a staple and suture, respectively, which enables a physician to perform a minimally invasive replication of open surgery.

There are many companies that are selling or have developed hemostats which compete generally with our D-Stat Flowable hemostat. Virtually all of these devices, however, are positioned as hemostats for the surgical market and are not designed specifically for use in electrophysiology procedures.

In each of our product areas, we believe that several other companies are developing new devices. The medical device industry is characterized by rapid and significant technological changes as well as the frequent emergence of new technologies. There are likely to be research and development projects related to these market areas of which we are currently unaware. A new technology or product may emerge that results in a reduced need for our products or results in a product that renders our product noncompetitive.

Regulatory Requirements

United States

Our products are regulated in the United States as medical devices by the FDA under the Federal Food, Drug and Cosmetic Act. The FDA classifies medical devices into one of three classes based upon controls the FDA considers necessary to reasonably ensure their safety and effectiveness. Class I devices are subject to general controls such as labeling, adherence to good manufacturing practices and maintenance of product complaint records, but are usually exempt from premarket notification requirements. Class II devices are subject to the same general controls and also are subject to special controls such as performance standards, and FDA guidelines, and may also require clinical testing prior to approval. Class III devices are subject to the highest level of controls because they are used in life-sustaining or life-supporting implantable devices. Class III devices require rigorous clinical testing prior to their approval and generally require a premarket approval (PMA) or supplement application prior to their sale.

If a medical device manufacturer can establish that a device is “substantially equivalent” to a legally marketed Class I or Class II device, or to an unclassified device, or to a Class III device for which the FDA has not called for PMAs, the manufacturer may seek clearance from the FDA to market the device by filing a 510(k) premarket notification. The 510(k) notification must be supported by appropriate data establishing the claim of substantial equivalence to the satisfaction of the FDA. Following submission of the 510(k) notification, the manufacturer may not place the device into commercial distribution in the United States until an order is issued by the FDA.

Manufacturers must file an investigated device exemption (IDE) application if human clinical studies of a device are required and if the FDA considers experimental use of the device to represent significant risk to the patient. The IDE application must be supported by data, typically including the results of animal and mechanical testing of the device. If the IDE application is approved by the FDA, human clinical studies may begin at a specific number of investigational sites with a maximum number of patients, as approved by the FDA. The clinical studies must be conducted under the review of an independent institutional review board to ensure the protection of the patients’ rights.

Generally, upon completion of these human clinical studies, a manufacturer seeks approval of a Class III medical device from the FDA by submitting a PMA application. A PMA application must be supported by extensive data, including the results of the clinical studies, as well as literature to establish the safety and effectiveness of the device.

Our Duett sealing device is classified as a Class III device and is subject to the PMA requirements. In May 1997, the FDA determined that the review of the Duett sealing device would be delegated to the Center for Devices and Radiological Health area of the FDA, with a consulting review by the Center for Biologic Evaluation and Research. During 1998 and 1999, we received approval of our IDE application, completed our multi-center clinical study and submitted our PMA application with the FDA. On June 22, 2000, we received approval from the FDA of our PMA application to sell the Duett sealing device in the United States. Our D-Stat Flowable is dually classified as both a Class III and Class II device based on the three distinct indications for use that have been assigned to this product.

Our D-Stat Dry, Pronto, Vari-Lase, specialty catheters and access products product lines generally are classified as Class II products and therefore require clearance of a 510(k) notification by the FDA prior to being sold in the United States. Each of the devices within these product lines was subject to a 510(k) notification which was determined to be “substantially equivalent” to a legally marketed predicate device by the FDA, thereby allowing commercial marketing in the United States.

Our Thrombi-Gel and Thrombi-Paste product lines are indicated for use as topical hemostats and, as such, are classified as Class II products. Approval for expanded use as surgical hemostats will place these products into the Class III designation subject to the PMA requirements. On October 31, 2006, the FDA

published a proposed rule to reclassify absorbable hemostatic devices from Class III to Class II. If implemented as written, approval of these products as absorbable hemostats would no longer require PMA approval and could be accomplished through the 510(k) notification process. There is no assurance that the proposed rule will be adopted as written and there is no firm date for a final decision on this action.

We also are subject to FDA regulations concerning manufacturing processes and reporting obligations. These regulations require that manufacturing steps be performed according to FDA standards and in accordance with documentation, control and testing standards. We also are subject to inspection by the FDA on an on-going basis. We are required to provide information to the FDA on adverse incidents as well as maintain a documentation and record keeping system in accordance with FDA guidelines. The advertising of our products also is subject to both FDA and Federal Trade Commission jurisdiction. If the FDA believes that we are not in compliance with any aspect of the law, it can institute proceedings to detain or seize products, issue a recall, stop future violations and assess civil and criminal penalties against us, our officers and our employees.

International

The European Union has adopted rules which require that medical products receive the right to affix the CE mark, an international symbol of adherence to quality assurance standards and compliance with applicable European medical device directives. As part of the CE mark compliance, manufacturers are required to comply with the European quality systems standards. We received the CE mark approval for our Duett sealing device and certification of our quality system in July 1998, and we received the CE mark approval for other select products within our product lines.

Our hemostatic products contain bovine-derived thrombin and are subject to additional regulatory review within the European Union to minimize the risk of exposure to viral and BSE pathogens. The regulations in this area continue to evolve and our products may be subject to additional regulatory scrutiny in the future.

International sales of our products are subject to the regulatory requirements of each country in which we sell. These requirements vary from country to country but generally are less stringent than those in the United States. We have obtained regulatory approvals where required for us to sell our products in those countries.

Third Party Reimbursement

In the United States, healthcare providers that purchase medical devices generally rely on third-party payors, principally the Centers for Medicare and Medicaid Services or CMS (formerly the Health Care Financing Administration, or HCFA) and private health insurance plans, to reimburse all or part of the cost of catheterization procedures. We believe that in the current United States reimbursement system, the cost of vascular sealing devices is incorporated into the overall cost of the catheter procedure. Our other products are subject to reimbursement rules depending on the specific medical procedure in which they are utilized.

CMS and the AMA Current Procedure Terminology (CPT) panel finalized the implementation of reimbursement codes for the endovenous laser ablation procedure beginning in January 2005. This action cleared the way for a consistent means of billing the Medicare program for medically necessary vein treatments using laser technologies and resulted in a favorable reimbursement rate. Reimbursement for these procedures is now well-established but adjusted annually in accordance with the normal adjustment procedures of CMS.

Market acceptance of our products in international markets is dependent in part upon the availability of reimbursement from healthcare payment systems. Reimbursement and healthcare payment systems in international markets vary significantly by country. The main types of healthcare payment systems in international markets are government-sponsored healthcare and private insurance. Countries with government-sponsored healthcare, such as the United Kingdom, have a centralized, nationalized healthcare system. New devices are brought into the system through negotiations between departments at individual

hospitals at the time of budgeting. In most foreign countries, there are also private insurance systems that may offer payments for alternative therapies.

Patents and Intellectual Property

We file patent applications to protect technology, inventions and improvements that are significant to the development of our business, and use trade secrets and trademarks to protect other areas of our business. We currently have 10 U.S. patents issued and nine additional patents pending concerning our Duett sealing device, Pronto catheter, Langston dual lumen pigtail catheter and other specialty catheters, Vari-Lase product line and D-Stat Dry product. We also have pursued international patent applications.

In the past, the interventional medical device market in general and the endovenous laser therapy field in particular, are characterized by frequent and substantial intellectual property litigation. (See “Legal Proceedings” in Item 3 of Part I of this Form 10-K.) The interpretation of patents involves complex and evolving legal and factual questions. Intellectual property litigation in recent years has proven to be complex and expensive, and the outcome of such litigation is difficult to predict.

We may become the subject of intellectual property claims in the future related to our products. Our defense of any intellectual property claims filed in the future, regardless of the merits of the complaint, could divert the attention of our technical and management personnel away from the development and marketing of our products for significant periods of time. The costs incurred to defend future claims could be substantial and adversely affect us, even if we are ultimately successful.

We also rely on trade secret protection for certain aspects of our technology. We typically require our employees, consultants and vendors for major components to execute confidentiality agreements upon their commencing services with us or before the disclosure of confidential information to them. These agreements generally provide that all confidential information developed or made known to the other party during the course of that party’s relationship with us is to be kept confidential and not disclosed to third parties, except in special circumstances. The agreements with our employees also provide that all inventions conceived or developed in the course of providing services to us shall be our exclusive property.

We also register the trademarks and trade names through which we conduct our business. To date, we have registered the trademarks “Acolysis[®],” “Acolysis Probe[®],” “Acolysis System[®],” “Acolysis System Therapeutic Ultrasound Thrombolysis[®],” “Auto-Fill[®],” “D-Stat[®],” “Langston[®],” “Pronto[®],” “Skyway[®],” “Thrombix[®],” “Thrombi-Gel[®],” “Twin-Pass[®],” “VacLock[®],” and “Vari-Lase[®],” and we use the following trademarks “Axis[™],” “Bright Tip[™],” “Carlucci[™],” “D-Stat Dry[™],” “Gandras[™],” “Gopher[™],” “GuideLiner[™],” “Handy[™],” “InnerChange[™],” “Jiffy[™],” “Max-Support[™],” “Minnie[™],” “QXT[™],” “ThrombiGel Paste[™],” “Thrombin-VSI[™],” “Vascular Solutions Duett[™],” and the Duett stylized logo. We acquired the registered trademark “Acolysis” in connection with our acquisition of the Acolysis therapeutic ultrasound business in 2002. U.S. trademark registrations are generally for a term of 10 years, renewable every 10 years as long as the trademark is used in the regular course of trade.

Employees

As of December 31, 2008, we had 252 full-time employees. Of these employees, 70 were in manufacturing activities, 115 were in sales and marketing activities, 24 were in research and development activities, 27 were in regulatory, quality assurance and clinical research activities and 16 were in general and administrative functions. We have never had a work stoppage and none of our employees are covered by collective bargaining agreements. We believe our employee relations are good. We are an Equal Opportunity Employer.

Executive Officers of the Registrant

Our executive officers as of January 31, 2009 are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Howard Root	48	Chief Executive Officer and Director
James Hennen	36	Chief Financial Officer, Vice President of Finance and Corporate Secretary
James Quackenbush	50	Vice President of Manufacturing
Fred Reuning	53	Vice President of Vari-Lase Business
Brett Demchuk	45	Vice President of Quality
William Rutstein	56	Vice President of International Sales
Susan Christian	40	Vice President of Sales Operations

Howard Root has served as our Chief Executive Officer and a director since he co-founded Vascular Solutions, Inc. in February 1997. From 1990 to 1995, Mr. Root was employed by ATS Medical, Inc., a mechanical heart valve company, most recently as Vice President and General Counsel. Prior to joining ATS Medical, Mr. Root practiced corporate law, specializing in representing emerging growth companies, at the law firm of Dorsey & Whitney for over five years. Mr. Root received his B.S. in Economics and J.D. from the University of Minnesota - Minneapolis.

James Hennen has served as our Chief Financial Officer since January 2004. Mr. Hennen served as our Controller & Director of Finance from February 2002 through December 2003. Prior to joining us, Mr. Hennen served in various accounting positions, most recently as International Controller with WAM!NET, Inc., a globally networked information technology company for media transfer, where he worked from December 1997 through February 2002. From October 1995 through December 1997, Mr. Hennen was a Senior Auditor for Ernst & Young, LLP. Mr. Hennen received a B.S. in Business/Accounting from the University of Minnesota - Minneapolis. Mr. Hennen is a Certified Public Accountant (inactive).

James Quackenbush has served as our Vice President of Manufacturing since March 1999. Prior to joining us, Mr. Quackenbush served as Vice President of Manufacturing and Operations of Optical Sensors, Inc., a diagnostic medical device company, where he worked from October 1992 through March 1999. From March 1989 through October 1992, Mr. Quackenbush served as operations manager with Schneider USA's stent division. Prior to this time, he was an advanced project engineer with the 3M Medical Products Division. Mr. Quackenbush received a B.S. in Industrial Engineering from Iowa State University.

Fred Reuning has served as our Vice President of Vari-Lase Business since October 2008. Mr. Reuning served as our Vice President of Marketing from July 2005 through September 2008. Prior to joining us, Mr. Reuning worked at Smiths Medical, a medical device company, where he was Director of Marketing for the Vascular Access division from November 2001 to July 2005 and Senior Product Manager from January 2000 to November 2001. From 1987 to 2000, Mr. Reuning worked for Novartis Nutrition, a medical nutrition company, in product management for medical devices with his last position as Group Manager, Medical Devices from November 1997 to December 1999. Mr. Reuning received a B.A. in history from Washington and Lee University and an M.A. in international studies from Johns Hopkins School of Advanced International Studies.

Brett Demchuk has served as our Vice President of Quality since July 2007. Prior to joining us, Mr. Demchuk worked at ATS Medical, Inc. where he was Senior Director of Operations from 1998 to July 2007 and Quality Manager from 1992 to 1998. Prior to this time, he held quality assurance engineering positions at Orthomet and GV Medical. Mr. Demchuk received a B.S. in Mechanical Engineering from North Dakota State University.

Bill Rutstein has served as our Vice President of International Sales since October 2008. Mr. Rutstein served as our Senior Director of International Sales from January 2008 to September 2008 and was our Director of International Sales since joining Vascular Solutions in August 1999. Prior to joining us, Mr. Rutstein was the Business Unit Director for the cardiosurgery division of Minntech Corporation, a medical device company, from April 1997 to July 1999. From November 1988 to March 1997, Mr. Rutstein worked for Daig Corporation (a St. Jude Medical Company), a medical device company specializing in cardiology and electrophysiology catheters, where he served as Regional Sales Manager, National Sales Manager, OEM Sales Manager and International Sales Manager.

Susan Christian has served as our Vice President of Sales Operations since October 2008. Ms. Christian previously served as our Senior Director of Sales Operations and Director of Sales Administration since she joined the company in September 2006. Prior to joining us, Ms. Christian served as the Senior Vice President of Finance & Operations of Tad Ware & Company, Inc., a marketing communications agency, where she worked from April 1992 to September 2006. From August 1990 through March 1992, Ms. Christian was a Tax Accountant for Arthur Anderson & Co.. Ms. Christian received a B.B.A. in Business/Accounting from the University of Wisconsin – Eau Claire. Ms. Christian is a Certified Public Accountant (inactive).

There are no family relationships among any of our executive officers.

Available Information

We make available free of charge on or through our internet website at www.vascularsolutions.com our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (the Exchange Act) as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

ITEM 1A. RISK FACTORS

The risks and uncertainties described below are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of the following risks occur, our business, financial condition or results of operations could be seriously harmed.

We will not be successful if the interventional medical device community does not adopt our new products.

During the third quarter of 2000 we commenced sales of our first product in the United States, the Duett sealing device. In the second half of 2003, we received clearance to commence sales of four new interventional products in the United States, and we have launched additional new products since 2003. Our success will depend on the continued launch of new products and the medical community's acceptance of our new products. We cannot predict how quickly, if at all, the medical community will accept our new products, or, if accepted, the continuation or extent of their use. Our potential customers must:

- believe that our products offer benefits compared to the methodologies and/or devices that they are currently using;
- use our products and obtain acceptable clinical outcomes;
- believe that our products are worth the price that they will be asked to pay; and
- be willing to commit the time and resources required to change their current methodology.

Because we are often selling a new technology, we have limited ability to predict the level of growth or timing in sales of these products. If we encounter difficulties in growing our sales of our new medical devices in the United States, our business will be seriously harmed.

We have limited working capital to pursue our business.

On December 31, 2008, we had \$7.2 million in cash and cash equivalents and a working capital of \$22.7 million. In 2008, our operating activities resulted in the usage of \$2.3 million of cash, principally through the payments to settle litigation with both VNUS and Diomed Holdings Inc. We believe that our current working capital is sufficient for all of our foreseeable needs; however, if we encounter unexpected expenses or substantial disruption to our business, we could be forced to raise additional working capital. We have no commitments for additional funding and so our ability to meet any unexpected liquidity needs is uncertain. If we raise additional funds through the issuance of equity securities, our shareholders may experience significant dilution. Furthermore, additional financing may not be available when needed or, if available, financing may not be on terms favorable to us or our shareholders. If financing is not available when required or is not available on acceptable terms, we may be unable to develop or market our products or unable to take advantage of business opportunities, or we may be required to significantly curtail our business operations.

We do not know what impact the current unprecedented volatility in worldwide credit and equity markets may have on our ability to obtain future financing. Since September 2008, we have seen unprecedented turmoil in equity and credit markets that has resulted in record-setting losses in the stock markets, dramatic decreases of liquidity in the credit markets, bank failures, hedge fund closures and massive market intervention by the United States and foreign governments. Because of the unprecedented nature of these market events, and because the markets remain highly-volatile today, we cannot predict what effect these events will have on our ability to obtain financing in the future.

We have a limited history of profitability and may not be profitable in the future.

Since we commenced operations in February 1997 through 2007 we have incurred net losses primarily from costs relating to the development and commercialization of our new products. At December 31, 2008, we had an accumulated deficit of \$53.7 million. We believe that in 2008 we achieved a level of consistent profitability from our continuing operations; however, while we believe profits from operations will continue, there is no assurance that this will continue, and we cannot be certain that we can sustain or increase profitability on a quarterly or annual basis.

We may face litigation claims which could prevent us from manufacturing and selling our products or result in our incurring substantial costs and liabilities.

The interventional medical device industry is characterized by numerous patent filings and frequent and substantial intellectual property litigation. Companies in the interventional medical device industry have employed intellectual property litigation in an attempt to gain a competitive advantage. While we do not believe that any of our products infringe any existing patent, it is highly likely that we will become subject to intellectual property claims with respect to our new or current products in the future. Intellectual property litigation in recent years has proven to be very complex, and the outcome of such litigation is difficult to predict.

An adverse determination in any intellectual property litigation or interference proceedings could prohibit us from selling a product, subject us to significant immediate payments to third parties and require us to seek licenses from third parties. The costs associated with these license arrangements may be substantial and could include substantial up-front payments and ongoing royalties. Furthermore, the necessary licenses may not be available to us on satisfactory terms, if at all. Adverse determinations in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing and selling a product.

Our defense of intellectual property claims filed in the future, regardless of the merits of the complaint, could divert the attention of our technical and management personnel away from the development and marketing of our products for significant periods of time. The costs incurred to defend future claims could be substantial and seriously harm us, even if our defense is ultimately successful.

Our future operating results are difficult to predict and may vary significantly from quarter to quarter, which may adversely affect the price of our common stock.

The limited history of our sales and recent introductions of new products make prediction of future operating results difficult. You should not rely on our past revenue growth as any indication of future growth rates or operating results. The price of our common stock will likely fall in the event that our operating results do not meet the expectations of analysts and investors. Comparisons of our quarterly operating results are an unreliable indication of our future performance because they are likely to vary significantly based on many factors, including:

- the level of sales of our products in the United States market;
- our ability to introduce new products and enhancements in a timely manner;
- the demand for and acceptance of our products;
- the success of our competition and the introduction of alternative products;
- our ability to command favorable pricing for our products;
- the growth of the market for our devices;
- the expansion and rate of success of our direct sales force in the United States and our independent distributors internationally;
- actions relating to ongoing FDA compliance;
- the effect of intellectual property disputes;
- the size and timing of orders from independent distributors or customers;
- the attraction and retention of key personnel, particularly in sales and marketing, regulatory, manufacturing and research and development;
- unanticipated delays or an inability to control costs;
- general economic conditions as well as those specific to our customers and markets; and
- seasonal fluctuations in revenue due to the elective nature of some procedures.

We may face product liability claims that could result in costly litigation and significant liabilities.

The manufacture and sale of medical products entail significant risk of product liability claims. Any product liability claims, with or without merit, could result in costly litigation, reduced sales, cause us to incur significant liabilities and divert our management's time, attention and resources. Because of our limited operating history and lack of experience with these claims, we cannot be sure that our product liability insurance coverage is adequate or that it will continue to be available to us on acceptable terms, if at all.

The market for interventional medical devices is highly competitive and will likely become more competitive, and our competitors may be able to respond more quickly to new or emerging technologies and changes in customer requirements that may render our products obsolete.

The existing market for interventional medical devices is intensely competitive. We expect competition to increase further as companies develop new products and/or modify their existing products to compete directly with ours. Each of our products encounters competition from several medical device companies, including Medtronic Inc., Abbott Laboratories and St. Jude Medical Inc. Each of these companies has:

- better name recognition;
- broader product lines;
- greater sales, marketing and distribution capabilities;
- significantly greater financial resources;
- larger research and development staffs and facilities; and
- existing relationships with some of our potential customers.

We may not be able to effectively compete with these companies. In addition, broad product lines may allow our competitors to negotiate exclusive, long-term supply contracts and offer comprehensive pricing for their products. Broader product lines may also provide our competitors with a significant advantage in marketing competing products to group purchasing organizations and other managed care organizations that are increasingly seeking to reduce costs through centralized purchasing. Greater financial resources and product development capabilities may allow our competitors to respond more quickly to new or emerging technologies and changes in customer requirements that may render our products obsolete.

Our international sales are subject to a number of risks that could seriously harm our ability to successfully commercialize our products in any international market.

Our international sales are subject to several risks, including:

- the ability of our independent distributors to sell our products;
- the impact of recessions in economies outside the United States;
- greater difficulty in collecting accounts receivable and longer collection periods;
- unexpected changes in regulatory requirements, tariffs or other trade barriers;
- weaker intellectual property rights protection in some countries;
- potentially adverse tax consequences; and
- political and economic instability.

The occurrence of any of these events could seriously harm our future international sales and our ability to successfully commercialize our products in any international market.

We have limited manufacturing experience and may encounter difficulties in our manufacturing operations which could seriously harm our business.

We have limited experience in manufacturing our products. In particular, we have limited experience in lyophilization, which is a key manufacturing step for our D-Stat Dry hemostatic bandage. We believe our

facilities are adequate for our projected production of our products for the foreseeable future, but future facility requirements will depend largely on future sales of our products in the United States. We may encounter unforeseen difficulties in expanding our production of our new products, including problems involving production yields, quality control and assurance, component supply and shortages of qualified personnel, compliance with FDA regulations and requirements regarding good manufacturing practices, and the need for further regulatory approval of new manufacturing processes. Difficulties encountered by us in expanding and maintaining our manufacturing capabilities could seriously harm our business.

Our business and results of operations may be seriously harmed by changes in third-party reimbursement policies.

We could be seriously harmed by changes in reimbursement policies of governmental or private healthcare payors, particularly to the extent any changes affect reimbursement for catheterization procedures in which our products are used. Failure by physicians, hospitals and other users of our products to obtain sufficient reimbursement from healthcare payors for procedures in which our products are used or adverse changes in governmental and private third-party payors' policies toward reimbursement for such procedures would seriously harm our business.

In the United States, healthcare providers, including hospitals and clinics that purchase medical devices such as our products, generally rely on third-party payors, principally federal Medicare, state Medicaid and private health insurance plans, to reimburse all or part of the cost of catheterization procedures. Any changes in this reimbursement system could seriously harm our business.

In international markets, acceptance of our products is dependent in part upon the availability of reimbursement within prevailing healthcare payment systems. Reimbursement and healthcare payment systems in international markets vary significantly by country. Our failure to receive international reimbursement approvals could have a negative impact on market acceptance of our products in the markets in which these approvals are sought.

Our products and our manufacturing activities are subject to extensive governmental regulation that could prevent us from selling our products in the United States or introducing new and improved products.

Our products and our manufacturing activities are subject to extensive regulation by a number of governmental agencies, including the FDA and comparable international agencies. We are required to:

- obtain the clearance of the FDA and international agencies before we can market and sell our products;
- satisfy these agencies' content requirements for all of our labeling, sales and promotional materials; and
- undergo rigorous inspections by these agencies.

Compliance with the regulations of these agencies may delay or prevent us from introducing any new model of our existing products or other new products. Furthermore, we may be subject to sanctions, including temporary or permanent suspension of operations, product recalls and marketing restrictions if we fail to comply with the laws and regulations pertaining to our business.

We are also required to demonstrate compliance with the FDA's quality system regulations. The FDA enforces its quality system regulations through pre-approval and periodic post-approval inspections. These regulations relate to product testing, vendor qualification, design control and quality assurance, as well as the maintenance of records and documentation. If we are unable to conform to these regulations, the FDA may take actions which could seriously harm our business. In addition, government regulation may be established that could prevent, delay, modify or rescind regulatory clearance or approval of our products.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our offices are located in two buildings totaling approximately 93,000 square feet of leased space in two suburbs of Minneapolis, Minnesota (Maple Grove and Plymouth). These facilities include approximately 37,000 square feet used for manufacturing activities and approximately 7,000 square feet used for research and laboratory activities, with the remainder used for general office space. On November 12, 2007, we amended both lease agreements to extend the terms of the leases through September 30, 2015, with additional renewal options.

ITEM 3. LEGAL PROCEEDINGS

On May 11, 2005 we initiated a lawsuit for product disparagement and false advertising against Marine Polymer Technologies, Inc., a Delaware corporation (Marine Polymer). In the lawsuit, we alleged that Marine Polymer made defamatory and disparaging statements concerning our D-Stat Dry hemostatic bandage. We sought relief in the form of an injunction to enjoin Marine Polymer from continuing to defame and disparage our products, damages as a result of such statements, and other costs, disbursements and attorneys' fees. Marine Polymer brought a counter-claim against us including, among other claims, business defamation and product disparagement for statements allegedly made by us concerning Marine Polymer's SyvekPatch[®]. Marine Polymer sought relief in the form of monetary damages, costs, disbursements and attorneys' fees. The trial commenced on March 24, 2008 in the U.S. District Court for the District of Massachusetts. At the conclusion of the trial on April 7, 2008 the jury returned a verdict in our favor and against Marine Polymer for product disparagement concerning statements made regarding the safety of our D-Stat Dry hemostat product. In its verdict, the jury found that Marine Polymer's statements were false and disparaged the D-Stat Dry product and awarded us \$4,500,000 in monetary damages. The jury rejected Marine Polymer's counterclaims in their entirety. Following post trial motions, on June 30, 2008, the Court upheld the jury verdict, granted our request for a permanent injunction against Marine Polymer for the statements that the jury found were false, and added prejudgment interest on the jury verdict award in the amount of \$592,124. On July 14, 2008, Marine Polymer filed a Notice of Appeal with the U.S. First Circuit Court of Appeals seeking to overturn the monetary damages and injunction issued against them. Oral argument on Marine Polymer's appeal is scheduled to be held on February 4, 2009. Marine Polymer is not appealing the Court's rejection of its counter claims.

From time to time we are involved in legal proceedings arising in the normal course of our business. As of the date of this report we are not a party to any legal proceeding in which an adverse outcome would reasonably be expected to have a material adverse effect on our results of operations or financial condition.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the NASDAQ Global Market under the symbol "VASC". The following table sets forth, for the periods indicated, the high and low sales prices for our common stock as reported by the NASDAQ Global Market.

	<u>High</u>	<u>Low</u>
2008		
First Quarter	\$ 6.80	\$5.63
Second Quarter	7.66	6.19
Third Quarter	9.06	6.04
Fourth Quarter	9.75	6.78
2007		
First Quarter	\$11.03	\$8.85
Second Quarter	10.01	8.23
Third Quarter	9.83	7.08
Fourth Quarter	8.75	5.84

During the quarter ended December 31, 2008, we repurchased shares of common stock to satisfy income tax withholding obligations upon vesting of outstanding restricted share awards with employees.

Shares purchase activity for the fourth quarter of fiscal 2008 was as follows:

Date	Total Number of Shares Purchased	Price Paid per Share	Total Number of Shares Purchased as Part of a Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs
October 20, 2008	817	\$7.14	-	-

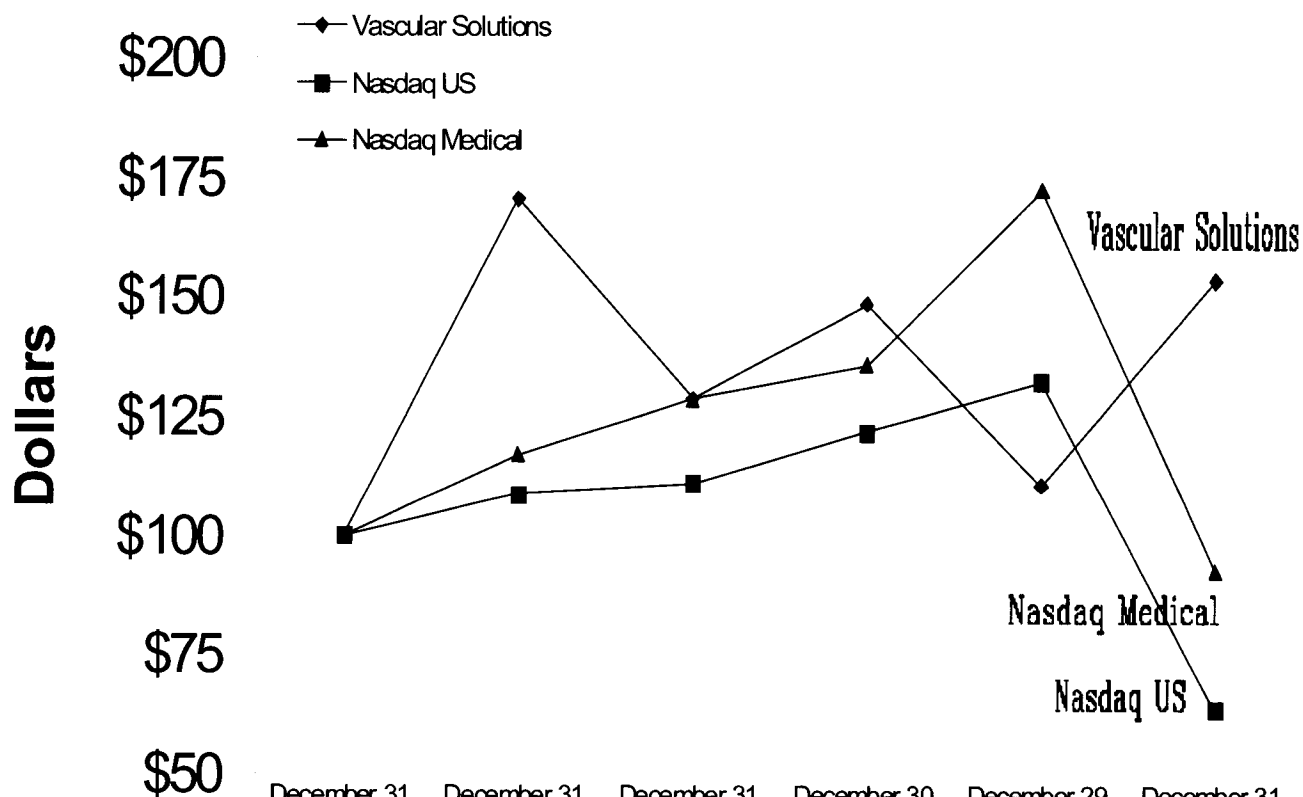
Holders

As of December 31, 2008, we had 152 shareholders of record. Such number of record holders does not reflect shareholders who beneficially own common stock in nominee or street name.

Dividends

We have paid no cash dividends on our common stock, and do not intend to pay cash dividends on our common stock in the future.

The following graph shows a comparison of cumulative total returns for our common stock, the NASDAQ Stock Market Index (U.S.) and the NASDAQ Medical Industry Index (Medical Devices, Instruments and Supplies), assuming the investment of \$100 in our common stock and each index on December 31, 2003 and the reinvestment of dividends, if any.



ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data as of December 31, 2008 and 2007 and for the three years ended December 31, 2008, 2007 and 2006 are derived from, and should be read together with, our consolidated financial statements included elsewhere in this Form 10-K. The following selected financial data as of December 31, 2006, 2005 and 2004 and for the fiscal years ended December 31, 2005 and 2004 are derived from consolidated financial statements not included herein. The information set forth below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations," the Consolidated Financial Statements and Notes thereto and other financial information included elsewhere in this Form 10-K.

	Year Ended December 31,				
	2008	2007	2006	2005	2004
	(in thousands, except per share amounts)				
Statements of Operations Data:					
Revenue:					
Product revenue	\$ 59,757	\$ 51,414	\$ 43,310	\$ 32,786	\$ 22,414
License and collaboration revenue	1,464	1,450	-	-	-
Total revenue	61,221	52,864	43,310	32,786	22,414
Product costs and operating expenses:					
Cost of sales	20,690	17,002	14,231	9,386	6,757
Cost of sales related to thrombin inventory	670	-	-	-	-
Collaboration expenses	632	685	-	-	-
Research and development.....	6,333	5,481	4,578	3,789	3,401
Clinical and regulatory	3,220	3,168	2,493	2,006	1,906
Sales and marketing	20,482	19,603	17,097	13,681	11,360
General and administrative	4,695	5,304	3,716	2,810	2,138
Thrombin qualification	-	147	2,802	1,620	210
Litigation	1,484	5,800	-	-	-
Amortization of purchased technology....	-	-	72	218	218
Total product costs and operating expenses	58,206	57,190	44,989	33,510	25,990
Operating income (loss)	3,015	(4,326)	(1,679)	(724)	(3,576)
Other income (expenses):					
Interest income	203	444	99	163	68
Interest expense	(62)	(148)	(206)	-	-
Foreign exchange loss.....	(28)	-	-	-	-
Income (loss) before income taxes	3,128	(4,030)	(1,786)	(561)	(3,508)
Income tax benefit (expense)	13,045	(276)	-	-	-
Net income (loss)	\$ 16,173	\$ (4,306)	\$ (1,786)	\$ (561)	\$ (3,508)
Net income (loss) per common share – Basic.....	\$ 1.04	\$ (0.28)	\$ (0.12)	\$ (0.04)	\$ (0.25)
Net income (loss) per common share – Diluted	\$ 1.01	\$ (0.28)	\$ (0.12)	\$ (0.04)	\$ (0.25)
Weighted average number of common shares outstanding	15,588	15,238	14,910	14,515	13,952

	As of December 31,				
	2008	2007	2006	2005	2004
	(in thousands)				
Balance Sheet Data:					
Cash, cash equivalents and available-for-sale securities (includes restricted cash)	\$ 7,209	\$ 10,759	\$ 2,557	\$ 4,282	\$ 7,184
Working capital (includes restricted cash)	22,677	14,530	11,472	10,887	11,833
Total assets	44,180	31,278	20,967	19,896	16,822
Total shareholders' equity	31,826	12,825	14,467	14,107	13,690

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and Notes thereto, and the other financial information included elsewhere in this Form 10-K. This Management's Discussion and Analysis of Financial Condition and Results of Operations contains descriptions of our expectations regarding future trends affecting our business. These forward-looking statements and other forward-looking statements made elsewhere in this document are made in reliance upon safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Item 1A of Part I of this Form 10-K sets forth certain factors we believe could cause actual results to differ materially from those contemplated by the forward-looking statements.

Overview

We are a medical device company focused on bringing solutions to interventional cardiologists and interventional radiologists. As a vertically-integrated medical device company, we generate ideas and create new interventional medical devices, and then deliver those products directly to the physician through our direct domestic sales force and international distribution network. We continue to develop new products and new applications for our existing products.

Results of Operations

The following table sets forth, for the periods indicated, certain items from our statements of operations expressed as a percentage of net sales:

	Year Ended December 31,		
	2008	2007	2006
Revenue:			
Product revenue	98%	97%	100%
License and collaboration revenue	2%	3%	-
Total revenue	100%	100%	100%
Product costs and operating expenses:			
Cost of sales	34%	32%	33%
Cost of sales related to thrombin inventory	1%	-	-
Collaboration expenses	1%	1%	-
Research and development	10%	11%	11%
Clinical and regulatory	5%	6%	6%
Sales and marketing	34%	37%	39%
General and administrative.....	8%	10%	9%
Thrombin qualification.....	-	-	6%
Litigation	2%	11%	-
Total product costs and operating expenses	95%	108%	104%
Operating income (loss)	5%	(8%)	(4%)
Interest income/expense and foreign exchange loss, net	-	1%	-
Income (loss) before income taxes	5%	(7%)	(4%)
Income tax benefit (expense)	21%	(1%)	-
Net Income (loss)	26%	(8%)	(4%)

Our primary products are categorized into five product lines. The following table sets forth, for the periods indicated, net revenue by product line along with the change from the previous year:

	For Years Ended December 31,					
	2008		2007		2006	
	Net Revenue	Percent Change	Net Revenue	Percent Change	Net Revenue	Percent Change
Hemostat products	\$23,475,000	(5%)	\$24,712,000	14%	\$21,709,000	9%
Extraction catheters	14,992,000	36%	11,016,000	22%	9,058,000	42%
Vein products	10,035,000	16%	8,629,000	22%	7,049,000	62%
Specialty catheters	4,563,000	36%	3,363,000	8%	3,126,000	202%
Access products	5,561,000	99%	2,790,000	74%	1,604,000	140%
Other products	1,131,000	25%	904,000	18%	764,000	40%
License & Collaboration.....	1,464,000	1%	1,450,000	N/A	-	-
Total Net Revenue	<u>\$61,221,000</u>	<u>16%</u>	<u>\$52,864,000</u>	<u>22%</u>	<u>\$43,310,000</u>	<u>32%</u>

Year ended December 31, 2008 compared to year ended December 31, 2007

Net revenue increased to \$61,221,000 for the year ended December 31, 2008 from \$52,864,000 for the year ended December 31, 2007. The increase in net revenue was a result of an increased market penetration in all five of our product categories as well as the introduction of new products. Approximately \$52,990,000 (87%) of our net revenue for the year ended December 31, 2008 was generated from customers in the United States, while \$8,231,000 (13%) of our net revenue was generated from customers in international markets.

We recognized \$818,000 of licensing revenue during 2008 as the result of our License Agreement and Device Supply Agreement with King, and our distribution agreement with Nicolai in Germany. We also recognized \$646,000 of collaboration revenue in 2008 as a result of performing clinical and development work for King under the Device Supply Agreement. We expect to recognize approximately \$900,000 of license revenue in 2009, and expect collaboration revenue will continue in 2009 dependent upon our progress with our pre-clinical and clinical projects for King.

Product gross margin declined to 65% for the year ended December 31, 2008, compared to 67% for the year ended December 31, 2007 as the result of a shift in our product mix. Gross margins vary substantially across our product lines, resulting in variations to our overall product gross margin based on changes in the selling mix of our product lines. We expect gross margins to be in the range of 64% to 66% in 2009 based on our expectation of a similar shifting of our selling mix of products in 2009 compared to 2008.

Cost of sales related to thrombin inventory expenses were \$670,000 for the year ended December 31, 2008. Cost of sales related to thrombin inventory expenses relate to a reserve we have recorded for the amount of thrombin we anticipate expiring prior to being used in the manufacturing of our international hemostat products. We do not anticipate incurring additional charges related to thrombin inventory during 2009.

Collaboration expenses were \$632,000 for the year ended December 31, 2008, compared to \$685,000 for the year ended December 31, 2007. Collaboration expenses primarily are the result of our collaboration revenue related to the pre-clinical and clinical projects we are performing for King. We expect collaboration expenses to be approximately 2% of revenue during 2009, dependent upon the timing of the collaboration revenue.

Research and development expenses increased 16% to \$6,333,000 for the year ended December 31, 2008 from \$5,481,000 for the year ended December 31, 2007. The increase was the result of our continued emphasis on investment in research and development, including an increase to 24 full-time employees in research and development at December 31, 2008 compared to 20 at December 31, 2007. We expect our continuing research and development expenses to be approximately 9% to 11% of revenue during 2009 as we continue to pursue additional new products and we continue to move our longer term development projects forward.

Clinical and regulatory expenses increased 2% to \$3,220,000 for the year ended December 31, 2008 from \$3,168,000 for the year ended December 31, 2007. Clinical and regulatory expenses fluctuate due to the timing of clinical studies and the number of new products coming through the regulatory system. We expect clinical and regulatory expenses to be approximately 4% to 5% of revenue during 2009.

Sales and marketing expenses increased 4% to \$20,482,000 for the year ended December 31, 2008 from \$19,603,000 for the year ended December 31, 2007. The primary reason for the increase in sales and marketing expenses was a \$430,000, or 15%, increase in our commissions paid to our direct sales force due to increased sales in 2008 over 2007. We expect to maintain the same relative size of our direct sales force during 2009 at between 85 and 90 full-time sales employees. As a result, we expect our sales and marketing expenses to range from approximately 33% to 34% of revenue at the beginning of 2009 to between 28% and 30% of revenue by the end of 2009.

General and administrative expenses decreased 11% to \$4,695,000 for the year ended December 31, 2008 from \$5,304,000 for the year ended December 31, 2007. The decrease was primarily the result of lower legal fees of approximately \$850,000 as all litigation was settled in the second quarter of 2008 (see Note 14 to the Consolidated Financial Statements included in Item 8 of Part II of this Form 10-K). We expect general and administrative expenses to be approximately 6% to 7% of revenue during 2009.

Litigation expense decreased 74% to \$1,484,000 for the year ended December 31, 2008 from \$5,800,000 for the year ended December 31, 2007. In the second quarter of 2008 we recorded a litigation gain of \$1,659,000 due to the settlement of our litigation with Diomed (reflecting a reduction from the \$5,245,000 litigation expense incurred in 2007 due to the Diomed jury verdict) and a litigation expense of \$3,116,000 upon settlement of the litigation with VNUS (see Note 14 to the Consolidated Financial Statements included in Item 8 of Part II of this Form 10-K). We did not recognize any gain resulting from the Marine Polymer jury verdict during 2008 and will not until any cash, if any, is received.

Thrombin qualification project expenses were \$-0- for the year ended December 31, 2008 compared to \$147,000 for the year ended December 31, 2007. On October 18, 2004, we entered into a supply agreement with Sigma-Aldrich Fine Chemicals, an operating division of Sigma-Aldrich, Inc. (Sigma) for the supply of thrombin to us. Pursuant to the terms of the agreement, we have paid for certain development costs of Sigma to allow Sigma to produce thrombin for our use. The initial contract term ends after 10 years and is automatically extended for up to five additional successive one year terms unless one party delivers notice of termination at least one year prior to the scheduled termination of the agreement. During the term of the agreement, Sigma has agreed not to sell thrombin of the type developed for us under the agreement in or as a component of a hemostatic product for medical use. We do not have any minimum purchase requirements under the agreement; however, if we purchase less than three lots of thrombin in any year then (1) Sigma will be released from its agreement not to sell thrombin in or as a component of a hemostatic product for medical use, and (2) Sigma will have the right to terminate the agreement upon 30 days notice.

The Sigma contract was part of our plan to fully qualify a second source of thrombin (in addition to the Thrombin-JMI[®] Supply Agreement discussed in "Agreements with King Pharmaceuticals, Inc." above) and to bring the new thrombin through the regulatory process to be used in our hemostatic products. We have purchased \$2.7 million of thrombin from Sigma, of which we have expensed approximately \$0.4 million in our development work and used approximately \$0.3 million in product manufacturing. We received regulatory approval in the first quarter of 2008 allowing us to use the Sigma thrombin in our international

hemostat products. A \$0.7 million expense was incurred in the fourth quarter of 2008 relating to a reserve recorded against our existing supply of Sigma thrombin due to the uncertainty of whether this amount of thrombin will be utilized prior to expiration of its shelf life. The remaining Sigma thrombin balance of \$1.3 million at December 31, 2008 is expected to be used in our hemostat products sold in international markets before expiration of its shelf life.

As described in “Agreements with King Pharmaceuticals, Inc.” above, in January 2007 we entered into the Thrombin-JMI[®] Supply Agreement in the United States with King with a price fixed throughout the 10 year term, adjusted for a producer price index tied to pharmaceuticals. The thrombin price under the agreement is confidential information; however, the price reflects a 25% discount to the price we paid in the last year of our previous thrombin supply agreement with King. The Thrombin-JMI[®] Supply Agreement does not terminate or affect our ability to complete the qualification of our own second thrombin source; however, with the near-term economic need to qualify a second source eliminated, we will be able to evaluate and plan our continuing expenses and steps on this project. We do not expect to incur any significant thrombin qualification expenses in 2009.

Interest income decreased to \$203,000 for the year ended December 31, 2008 from \$444,000 for the year ended December 31, 2007 primarily as a result of lower cash balances following the litigation settlement payments made to Diomed and VNUS (see “Legal Proceedings” in Item 3 of Part I of this Form 10-K).

Interest expense decreased to \$62,000 for the year ended December 31, 2008 from \$148,000 for the year ended December 31, 2007 as a result of paying off our equipment line of credit during the year ended December 31, 2008.

Foreign exchange loss increased to \$28,000 for the year ended December 31, 2008 from \$-0- for the year ended December 31, 2007. Effective April 1, 2008 we began to sell our products to Nicolai (our German distributor) at prices denominated in Euros. We also purchase a small number of inventory items at prices denominated in Euros. As a result, we are exposed to foreign exchange movements during the time between the shipment of the product and payment. We currently have terms of net 60 days with our distributor and net 30 with our vendors under the agreements providing for payments in Euros.

We recorded an income tax benefit of \$13,045,000 for the year ended December 31, 2008 compared to recorded income tax expense of \$276,000 for the year ended December 31, 2007. We assess the likelihood that our deferred tax assets will be recovered from future taxable income during the fourth quarter of each year. We consider projected future taxable income and ongoing tax planning strategies in assessing the amount of the valuation allowance necessary to offset our deferred tax assets that will not be recoverable. Based upon management’s assessment of all available evidence, including our cumulative pretax net income for fiscal years 2008 and 2007, estimates of future profitability and the overall prospects of our business, we determined that it is more likely than not that we will be able to realize a portion of our deferred tax assets in the future, and as a result recorded a \$13.2 million income tax benefit in the fourth quarter of fiscal 2008. To determine the amount of the reduction in the valuation allowance, we projected our income over the next five years, which approximates the ten-year life of our three most significant products at this time. The amount of the valuation allowance reduction was based on our discounted projected taxable income. We will continue to assess the potential realization of our deferred tax assets on an annual basis or on an interim basis if circumstances warrant. If our actual results and updated projections vary significantly from our prior estimates, we expect to increase or decrease our valuation allowance against our gross deferred tax assets. Any adjustment to our earnings for the deferred tax would occur in the period we make the determination. With the exception of 2008 and 2007, we have not generated any significant pre-tax income in any year and therefore have not paid any federal income taxes since our inception in December 1996. The adoption of FIN 48, *Accounting for Uncertainty in Income Taxes*, has not impacted our operating results since we have historically established a valuation allowance for the full value of our deferred assets.

As of December 31, 2008, we had approximately \$47.1 million and \$4.9 million of federal and state net operating loss carryforwards available to offset future taxable income which begin to expire in the year 2019. As of December 31, 2008, we also had federal and state research and development tax credit carryforwards of approximately \$4.3 million which begin to expire in the year 2012. As of December 31, 2008, we also had a foreign tax loss carryforward of approximately \$1.6 million, which does not expire. Under the United States Tax Reform Act of 1986, the amounts of and benefits from net operating loss carryforwards may be impaired or limited in certain circumstances, including significant changes in ownership interests. Future use of our existing net operating loss carryforwards may be restricted due to changes in ownership or from future tax legislation. We performed a section 382 “change in ownership” study during the third quarter 2005 on our federal net operating loss carryforward, and concluded that, as of the date of this study, we would have no limitations on the net operating loss carryforward. We don’t believe there have been any significant ownership changes since the date of this testing, therefore there are no restrictions at this time on the future use of our net operating loss carryforwards.

Results of Operations

Year ended December 31, 2007 compared to year ended December 31, 2006

Net revenue increased to \$52,864,000 for the year ended December 31, 2007 from \$43,310,000 for the year ended December 31, 2006. The increase in net revenue was a result of an increased market penetration rate in all our product categories as well as the introduction of new products. We recognized \$647,000 of licensing revenue as the result of receiving \$7,000,000 from King during 2007 as part of the License Agreement. We also recognized \$803,000 of collaboration revenue as a result of performing clinical and development work for King under the Device Supply Agreement and performing development work for a third party company. Approximately \$46,081,000 (87%) of our net revenue for the year ended December 31, 2007 was generated from customers in the United States, while \$6,783,000 (13%) of our net revenue was generated from customers in international markets.

Product gross margin remained at 67% for the year ended December 31, 2007 as the result of a relatively similar product mix and product cost structure as in the year ended December 31, 2006. Gross margins vary substantially across our product lines, resulting in variations to our overall product gross margin based on changes in the selling mix of our product lines.

Collaboration expenses were new to our financial statements in 2007 and were \$685,000 for the year ended December 31, 2007. Collaboration expenses are the result of our collaboration revenue related to the pre-clinical and clinical work we are performing for King. The 2007 expenses also include the product development expenses related to the work done for a third party company.

Research and development expenses increased 20% to \$5,481,000 for the year ended December 31, 2007 from \$4,578,000 for the year ended December 31, 2006. The increase was the result of our continued emphasis on investment in research and development, including an increase to 20 full-time employees in research and development at December 31, 2007 compared to 18 at December 31, 2006.

Clinical and regulatory expenses increased 27% to \$3,168,000 for the year ended December 31, 2007 from \$2,493,000 for the year ended December 31, 2006. The primary reason for the increase was the increase in the number of full-time employees to 32 in clinical, quality and regulatory functions at December 31, 2007 compared to 28 at December 31, 2006.

Sales and marketing expenses increased 15% to \$19,603,000 for the year ended December 31, 2007 from \$17,097,000 for the year ended December 31, 2006. The primary reason for the increase in sales and marketing expenses was the increase in our direct sales force to 89 employees at the end of 2007 compared to 82 as of December 31, 2006. Variable compensation including commissions paid to our direct sales force increased by 25% in 2007 compared to 2006 as sales increased.

General and administrative expenses increased 43% to \$5,304,000 for the year ended December 31, 2007 from \$3,716,000 for the year ended December 31, 2006. The increase was primarily the result of legal fees in the amount of approximately \$1.5 million relating to the Diomed, VNUS and Marine Polymer litigation combined, an increase of \$1.0 million from 2006 (see Note 14 to the Consolidated Financial Statements included in Item 8 of Part II of this Form 10-K).

Litigation expense was \$5,800,000 for the year ended December 31, 2007. The Diomed trial commenced on March 12, 2007 and concluded on March 28, 2007 when the jury reached a verdict that we had contributed to and induced infringement of Diomed's patent and awarded monetary damages in the amount of \$4,100,000, plus pre-judgment interest (see Note 14 to the Consolidated Financial Statements included in Item 8 of Part II of this Form 10-K). To settle Diomed's claims for pre-judgment interest and for additional damages for sales not considered by the jury, we agreed to amend the judgment amount to \$4,975,000 and accrued this amount together with additional costs and attorney's fees as of June 30, 2007 in the aggregate amount of \$5,690,000.

Thrombin qualification project expenses were \$147,000 for the year ended December 31, 2007 compared to \$2,802,000 for the year ended December 31, 2006.

Amortization of purchased technology was \$-0- during the year ended December 31, 2007 compared to \$72,000 during the year ended December 31, 2006. The amortization resulted from our acquisition of the Acolysis assets from the secured creditors of Angiosonics, Inc. in 2002. We allocated \$870,000 from the acquisition to purchased technology that was amortized over four years and completed in April 2006.

Interest income increased to \$444,000 for the year ended December 31, 2007 from \$99,000 for the year ended December 31, 2006 primarily as a result of higher cash balances due to the \$7.0 million in licensing and milestone payments we received from King in 2007.

Interest expense decreased to \$148,000 for the year ended December 31, 2007 from \$206,000 for the year ended December 31, 2006 as a result of continued payments of principal on our equipment line of credit.

Income tax expense was \$276,000 for the year ended December 31, 2007, primarily the result of federal and state alternative minimum tax (AMT). We incurred income tax expense in 2007 despite our loss before income taxes of \$4,030,000 due to the recognition for tax purposes of the \$7,000,000 in milestone and licensing payments from King and the delay in recognition for tax purposes of the \$5,219,000 judgment in the Diomed litigation pending our appeal.

Liquidity and Capital Resources

We have financed substantially all of our operations since inception through the issuance of equity securities and, to a lesser extent, sales of our products. Through December 31, 2008, we have sold capital stock generating aggregate net proceeds of approximately \$81.2 million. At December 31, 2008, we had \$7,209,000 in cash and cash equivalents on-hand, compared to \$10,759,000 in cash and cash equivalents at December 31, 2007.

During the year ended December 31, 2008 we used \$2,285,000 in cash as a result of operating activities, we incurred net capital expenditures in the amount of \$1,536,000, and we generated \$296,000 in cash from financing activities. Operating cash used was primarily the result of the litigation settlement payments made to Diomed and VNUS totaling \$7.3 million. Financing activities consisted of \$1,163,000 received through the sale of common stock upon the exercise of outstanding stock options, stock warrants and issuances under employee stock plans, which was reduced by \$867,000 in debt payments to pay-off our \$2 million equipment line. Capital expenditures included leasehold improvements for our expansion build-out as we leased the remaining 37,000 square feet of space in one of our leased buildings in September 2008 and constructed a new clean room, constructed a new training room, and purchased manufacturing automation equipment.

We have a \$10 million revolving line of credit with Silicon Valley Bank, which has a 24-month term and bears interest at the rate equal to the greater of prime plus 0.5% or 7.25% and is secured by a first security interest on all of our assets. Our previous \$2 million equipment line of credit was cancelled when it was paid-in-full during fiscal 2008. The credit facility includes three covenants: a minimum of \$10 million in tangible net worth, a minimum of \$3 million of unrestricted cash in deposit accounts with Silicon Valley Bank and an adjusted net income for each financial reporting period. The adjusted net income covenant requires an adjusted net income greater than \$500,000 for each rolling three month period for the remaining term of the agreement. The amount required as a minimum tangible net worth will increase by an amount equal to the sum of 50% of the Company's quarterly net profit and all consideration received by the Company upon the issuance of equity securities. The minimum tangible net worth requirement at December 31, 2008 was \$19,642,000. We were in compliance with all of the covenants on December 31, 2008. As of December 31, 2008, we had no outstanding balance on the \$10 million revolving line of credit with an availability of \$10.0 million.

The following table summarizes our contractual cash commitments as of December 31, 2008:

Contractual Obligations	Total	Payments Due by Period			
		Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Facility operating leases	\$5,430,000	\$ 749,000	\$1,558,000	\$1,650,000	\$1,473,000

We do not have any other significant cash commitments related to supply agreements, nor do we have any significant commitments for capital expenditures.

We currently anticipate that we will experience positive cash flow from our normal operating activities for the foreseeable future. We currently believe that our working capital of \$22.7 million at December 31, 2008 will be sufficient to meet all of our operating and capital requirements for the foreseeable future. However, our actual liquidity and capital requirements will depend upon numerous unpredictable factors, including the amount of revenues from sales of our existing and new products; the cost of maintaining, enforcing and defending patents and other intellectual property rights; competing technological and market developments; developments related to regulatory and third party reimbursement matters; and other factors.

If cash generated from operations is insufficient to satisfy our cash needs, we may be required to raise additional funds. In the event that additional financing is needed, and depending on market conditions, we may seek to raise additional funds for working capital purposes through the sale of equity or debt securities. There is no assurance such financing will be available on terms acceptable to us or available at all.

Critical Accounting Policies

Management's Discussion and Analysis of Financial Condition and Results of Operations addresses our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of our consolidated financial statements requires that we make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, we evaluate these estimates and judgments. We base our estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our accounting policies are described in Note 2 to the consolidated financial statements. We set forth below those material accounting policies that we believe are the most critical to an investor's understanding of our financial results and condition and that require complex management judgment.

Inventory

We state our inventory at the lower of cost (first-in, first-out method) or market. The estimated value of excess, obsolete and slow-moving inventory as well as inventory with a carrying value in excess of its net realizable value is established by us on a quarterly basis through review of inventory on hand and assessment of future demand, anticipated release of new products into the market, historical experience and product expiration. Our stated value of inventory could be materially different if demand for our products decreased because of competitive conditions or market acceptance, or if products become obsolete because of advancements in the industry. We have approximately \$1.3 million of Sigma thrombin in inventory at December 31, 2008, which we expect to use in our hemostat products sold in international markets. We received regulatory approval in February 2008 allowing us to use the Sigma thrombin in our international hemostat products. In the fourth quarter of 2008 we wrote-off \$670,000 of our Sigma thrombin which we expect will expire before we are able to use it. We will continue to review our Sigma thrombin needs and we will write-off any amounts we anticipate will not be used.

Revenue Recognition

We recognize revenue in accordance with generally accepted accounting principles as outlined in the Securities and Exchange Commission's Staff Accounting Bulletin No. 104 *Revenue Recognition*, which requires that four basic criteria be met before revenue can be recognized: (i) persuasive evidence of an arrangement exists; (ii) the price is fixed or determinable; (iii) collectability is reasonably assured; and (iv) product delivery has occurred or services have been rendered. We recognize revenue as products are shipped based on FOB shipping point terms when title passes to customers. We negotiate credit terms on a customer-by-customer basis and products are shipped at an agreed upon price. All product returns must be pre-approved and, if approved, customers are subject to a 20% restocking charge.

We also generate revenues from license agreements and research collaborations and recognizes these revenues when earned. In accordance with Emerging Issues Task Force (EITF) Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*, for deliverables which contain multiple deliverables, the Company separates the deliverables into separate accounting units if they meet the following criteria: (i) the delivered items have a stand-alone value to the customer; (ii) the fair value of any undelivered items can be reliably determined; and (iii) if the arrangement includes a general right of return, delivery of the undelivered items is probable and substantially controlled by the seller. Deliverables that do not meet these criteria are combined with one or more other deliverables into one accounting unit. Revenue from each accounting unit is recognized based on the applicable accounting literature, primarily Staff Accounting Bulletin (SAB) 104, *Revenue Recognition*.

Effective April 1, 2008 we entered into a five-year distribution agreement with Nicolai, GmbH. As a result of entering into this distribution agreement, we no longer maintain a direct sales force in Germany. In connection with this distribution agreement, we received four installment payments of 125,000 Euros from Nicolai, GmbH. The first of these four installment payments was due upon execution of the agreement and was received on March 14, 2008. The second installment payment was earned on June 30, 2008 and was received on July 9, 2008. The third installment payment was earned on September 30, 2008 and was received on October 3, 2008. The final installment payment was earned and received on December 31, 2008. The installment payments are deferred and recognized ratably over the five-year term of the distribution agreement. The distribution agreement also includes provisions requiring us to pay Nicolai, GmbH specific amounts if we terminate the distribution agreement prior to the end of the five-year term. We do not intend to terminate the distribution agreement and, as such, have not recorded a liability relating to these potential future payments to Nicolai, GmbH.

On January 9, 2007, we entered into three separate agreements with King, consisting of a License Agreement, a Device Supply Agreement and a Thrombin-JMI® Supply Agreement. We licensed the exclusive rights to our products Thrombi-Pad, Thrombi-Gel and Thrombi-Paste to King for a one-time payment of \$6 million. We continue to manufacture the licensed products for sale to King under the Device

Supply Agreement. The Device Supply Agreement requires King to pay us a \$1 million milestone payment upon the first commercial sale of Thrombi-Gel and again upon the first commercial sale of Thrombi-Paste. On May 30, 2007 we received the first \$1 million payment related to King's first commercial sale of Thrombi-Pad. We are amortizing the \$6 million license fee received on January 9, 2007 and the \$1 million milestone payment received on May 30, 2007 on a straight-line basis over the remaining 10 years. We also expect to amortize the second \$1 million milestone payment over the remaining 10-year license period from the date it is received.

As part of the Device Supply Agreement, we agreed to conduct clinical studies for Thrombi-Gel and Thrombi-Paste, with the expected costs related to the clinical studies to be paid by King. Additionally, on May 18, 2007, we entered into a Product Development & Supply Agreement with a third party company by which we agreed to develop, manufacture and sell to this company a specialty version of our Twin-Pass dual access catheter, with the costs related to the development paid by this company. We have recognized collaboration revenue on these development agreements as it was earned under the agreements with King and the third party company.

In addition, we have reviewed the provisions of EITF Issue No. 07-01, *Accounting for Collaborative Arrangements*, and believe the adoption of this EITF will have no impact on the amounts recorded under these agreements.

We analyze the rate of historical returns when evaluating the adequacy of the allowance for sales returns, which is included with the allowance for doubtful accounts on our balance sheet. At December 31, 2008, this reserve was \$25,000 compared to \$40,000 at December 31, 2007. If the historical data we use to calculate these estimates does not properly reflect future returns, revenue could be overstated.

Allowance for Doubtful Accounts

We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. This allowance is regularly evaluated by us for adequacy by taking into consideration factors such as past experience, credit quality of the customer base, age of the receivable balances, both individually and in the aggregate, and current economic conditions that may affect a customer's ability to pay. At December 31, 2008, this reserve was \$95,000 compared to \$90,000 at December 31, 2007. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

Warranty Costs

We provide a warranty for certain products against defects in material and workmanship for periods of up to 24 months. We record a liability for warranty claims at the time of sale. The amount of the liability is based on the amount we are charged by our original equipment manufacturer to cover the warranty period. The original equipment manufacturer includes a one year warranty with each product sold to us. We record a liability for the uncovered warranty period offered to a customer, provided the warranty period offered exceeds the initial one year warranty period covered by the original equipment manufacturer. At December 31, 2008, this warranty provision was \$49,000 compared to \$34,000 at December 31, 2007. If the assumptions used in calculating the provision were to materially change, resulting in more defects than anticipated, an additional provision may be required.

Income Taxes

The carrying value of our net deferred tax assets assumes that we will be able to generate sufficient taxable income in the United States based on estimates and assumptions. We record a valuation allowance to reduce the carrying value of our net deferred tax asset to the amount that is more likely than not to be realized. For the year ended December 31, 2008, we recorded a \$14.1 million valuation allowance and a \$597,000 reserve related to our net deferred tax assets of \$27.8 million as a result of our adoption of Financial

Accounting Standards Board Interpretation 48 (FIN 48), *Accounting for Uncertainty in Income Taxes — an Interpretation of FASB Statement No. 109*. At December 31, 2008, we have accrued \$-0- for the payment of tax related interest and there was no tax interest or penalties recognized in the statements of operations. Based upon management's assessment of all available evidence, including our cumulative pretax net income for fiscal years 2008 and 2007, estimates of future profitability and the overall prospects of our business, we determined that it is more likely than not that we will be able to realize a portion of our deferred tax assets in the future, and as a result recorded a \$13.2 million income tax benefit in the fourth quarter of fiscal 2008. To determine the amount of the reduction in the valuation allowance, we projected our income over the next five years, which approximates the ten-year life of our three most significant products at this time. The amount of the valuation allowance reduction was based on our discounted projected taxable income. We will continue to assess the potential realization of our deferred tax assets on an annual basis, or on an interim basis if circumstances warrant. If our actual results and updated projections vary significantly from our projections, we would need to increase or decrease our valuation allowance against our gross deferred tax assets. We would adjust our earnings for the deferred tax in the period we make the determination.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents and accounts receivables. We maintain our accounts for cash and cash equivalents principally at one major bank and one investment firm in the United States. We have a formal written investment policy that restricts the placement of investments to issuers evaluated as creditworthy. We have not experienced any losses on our deposits of our cash and cash equivalents.

With respect to accounts receivable, we perform credit evaluations of our customers and do not require collateral. There have been no material losses on accounts receivables.

In the United States and Germany, we sell our products directly to hospitals and clinics in the local currency. Product revenue recognized on sales in Germany represented approximately 1.0% of our total product revenue for the year ended December 31, 2008. Effective April 1, 2008, all Germany sales were transferred to the international distributor Nicolai, GmbH. Any exposure to currency exchange rates on this volume of product sales in Germany would be considered immaterial to the financial statements.

In all other international markets, we sell our products to independent distributors who, in turn, sell to medical clinics. We sell our product in these countries through independent distributors denominated in United States dollars. Loss, termination or ineffectiveness of distributors to effectively promote our product would have a material adverse effect on our financial condition and results of operations.

We do not believe our operations are currently subject to significant market risks for interest rates, foreign currency exchange rates, commodity prices or other relevant market price risks of a material nature. As we have earned and received all installment payments of 125,000 Euros pursuant to the terms of our distribution agreement with Nicolai, GmbH before the end of 2008, there is no further exposure to fluctuations in the Euro related to this agreement. A change of 0.1 in the Euro exchange would result in an increase or decrease of approximately \$18,000 in the amount of United States dollars we receive in payment on accounts receivable from Nicolai, GmbH. Under our current policies, we do not use foreign currency derivative instruments to manage exposure to fluctuations in the Euro exchange rate.

We currently have no indebtedness, but if we were to borrow amounts from our revolving credit line, we would be exposed to changes in interest rates. Advances under our revolving credit line bear interest at an annual rate indexed to prime. We will thus be exposed to interest rate risk with respect to amounts outstanding under the line of credit to the extent that interest rates rise. As we had no amounts outstanding on the line of credit at December 31, 2008, we have no exposure to interest rate changes on this credit facility. Under our current policies, we do not use interest rate derivative instruments to manage exposure to interest rate changes. Additionally, we will be exposed to declines in the interest rates paid on deposited funds. A

1% decline in the current market interest rates paid on deposits would result in interest income being reduced by approximately \$72,000 on an annual basis.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The Consolidated Financial Statements and Notes thereto required pursuant to this Item begin on page 41 of this Annual Report on Form 10-K.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective.

Changes in Internal Controls.

During the fiscal quarter ended December 31, 2008, there has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control Over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Our internal control system was designed to provide reasonable assurance to our management and board of directors regarding the preparation and fair presentation of published financial statements. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in *Internal Control - Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2008.

Virchow, Krause & Company, LLP, an independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting as of December 31, 2008.

Attestation Report of Independent Registered Public Accounting Firm.

Virchow, Krause & Company, LLP, an independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting as of December 31, 2008. The attestation report of Virchow, Krause & Company, LLP, on our internal control over financial reporting as of December 31, 2008 is included on page 43 and incorporated by reference herein.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Incorporated herein by reference to the Sections under the headings “Proposal 1: Election of Directors,” “Committees of the Board of Directors” and “Section 16(a) Beneficial Ownership Reporting Compliance” contained in the Proxy Statement for our Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission within 120 days of the close of the year ended December 31, 2008.

See the section under the heading “Executive Officers of the Registrant” in Item 1 of Part I herein for information regarding our executive officers.

Code of Ethics

We have adopted a code of ethics that applies to all of our directors, officers (including our chief executive officer, chief financial officer, chief accounting officer, and any person performing similar functions) and employees. We have made our Code of Ethics available by filing it as Exhibit 14 to our Form 8-K dated January 29, 2008, which exhibit is incorporated by reference as an exhibit to this Annual Report on Form 10-K.

ITEM 11. EXECUTIVE COMPENSATION

Incorporated herein by reference to the Sections under the headings “Director Compensation” and “Executive Compensation” contained in the Proxy Statement for our Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission within 120 days of the close of the year ended December 31, 2008.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Incorporated herein by reference to the Section under the heading “Security Ownership of Certain Beneficial Owners and Management” contained in the Proxy Statement for our Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission within 120 days of the close of the year ended December 31, 2008.

Equity Compensation Plans

The following table sets forth the securities authorized to be issued under our current equity compensation plans as of December 31, 2008:

<i>Plan category</i>	Number of securities to be issued upon exercise of outstanding options and rights	Weighted-average exercise price of outstanding options and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding outstanding options and rights)
Equity compensation plans approved by security holders.....	1,246,000	\$5.84	3,378,000 (1) (2)
Equity compensation plans not approved by security holders	None	None	None
Total.....	1,246,000	\$5.84	3,378,000

(1) Includes 2,586,000 shares reserved and available for issuance under our Stock Option and Stock Award Plan. The shares available for issuance under our Stock Option and Stock Award Plan automatically increases on an annual basis through 2016, by the lesser of:

- 500,000 shares;
- 5% of the common-equivalent shares outstanding at the end of our prior fiscal year; or
- a smaller amount determined by our Board of Directors or the committee administering the plan.

(2) Includes 792,000 shares reserved and available for issuance under our Employee Stock Purchase Plan. The shares available for issuance under our Employee Stock Purchase Plan automatically increases on an annual basis through 2010, by the lesser of:

- 200,000 shares;
- 2% of the common-equivalent shares outstanding at the end of our prior fiscal year; or
- a smaller amount determined by our Board of Directors or the committee administering the plan.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Incorporated herein by reference to the Sections under the headings “Related Person Transaction Policy” and “Proposal 1: Election of Directors” contained in the Proxy Statement for our Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission within 120 days of the close of the year ended December 31, 2008.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Incorporated herein by reference to the Section under the heading “Additional Information about our Independent Registered Public Accounting Firm” contained in the Proxy Statement for our Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission within 120 days of the close of the year ended December 31, 2008.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this Report.

(1) The following financial statements are filed herewith in Item 8 in Part II.

- (i) Reports of Independent Registered Public Accounting Firm
- (ii) Consolidated Balance Sheets
- (iii) Consolidated Statements of Operations
- (iv) Consolidated Statements of Changes in Shareholders' Equity
- (v) Consolidated Statements of Cash Flows
- (vi) Notes to Consolidated Financial Statements

(2) Financial Statement Schedules

Schedule II – Valuation and Qualifying Accounts. Such schedule should be read in conjunction with the consolidated financial statements. All other supplemental schedules are omitted because of the absence of conditions under which they are required.

(3) Exhibits

<u>Exhibit Number</u>	<u>Description</u>
3.1	Amended and Restated Articles of Incorporation of Vascular Solutions, Inc. (incorporated by reference to Exhibit 3.1 to Vascular Solutions' Form 10-Q for the quarter ended September 30, 2000).
3.2	Amended and Restated Bylaws of Vascular Solutions, Inc. (incorporated by reference to Exhibit 3.1 of Vascular Solutions' Form 8-K dated October 19, 2007).
4.1	Specimen of Common Stock certificate (incorporated by reference to Exhibit 4.1 of Vascular Solutions' Registration Statement on Form S-1 (File No. 333-84089)).
10.1	Lease Agreement dated August 30, 2002 by and between First Industrial, L.P. as Landlord and Vascular Solutions, Inc. as Tenant (incorporated by reference to Exhibit 10.1 of Vascular Solutions' Form 10-Q for the quarter ended September 30, 2002).
10.2	Lease Agreement dated December 28, 2006 by and between IRET - Plymouth, LLC as Landlord and Vascular Solutions, Inc. as Tenant (incorporated by reference to Exhibit 10.4 of Vascular Solutions' Form 10-K for the year ended December 31, 2006).
10.3	Amendment to Lease Agreement, dated November 12, 2007, by and between IRET - Plymouth, LLC as Landlord and Vascular Solutions, Inc. as Tenant (incorporated by reference to Exhibit 99.1 of Vascular Solutions' Form 8-K dated November 14, 2007).
10.4	Amendment to Lease Agreement, dated November 12, 2007, by and between IRET - Plymouth, LLC as Landlord and Vascular Solutions, Inc. as Tenant (incorporated by reference to Exhibit 99.2 of Vascular Solutions' Form 8-K dated November 14, 2007).
10.5	Mutual and General Release dated November 9, 1998 by and between Vascular Solutions, Inc., Dr. Gary Gershony and B. Braun Medical, Inc. (incorporated by reference to Exhibit 10.5 of Vascular Solutions' Registration Statement on Form S-1 (File No. 333-84089)).
10.6	Purchase and Sale Agreement dated September 17, 1998 by and between Vascular

- Solutions, Inc. and Davol Inc. (incorporated by reference to Exhibit 10.8 of Vascular Solutions' Registration Statement on Form S-1 (File No. 333-84089)).
- 10.7* Form of Employment Agreement by and between Vascular Solutions, Inc. and each of its executive officers (incorporated by reference to Exhibit 10.5 of Vascular Solutions' Form 10-Q for the quarter ended March 31, 2004).
- 10.8 Form of Distribution Agreement (incorporated by reference to Exhibit 10.12 of Vascular Solutions' Registration Statement on Form S-1 (File No. 333-84089)).
- 10.9* Vascular Solutions, Inc. Employee Stock Purchase Plan, as amended (incorporated by reference to Exhibit 10.14 to Vascular Solutions' Form 10-K for the year ended December 31, 2000).
- 10.10* Stock Option and Stock Award Plan as Amended December 9, 2005 (incorporated by reference to Exhibit 10.1 of Vascular Solutions' Form 8-K dated December 9, 2005).
- 10.11** Supply Agreement dated October 18, 2004 by and between Vascular Solutions and Sigma-Aldrich Fine Chemicals, an operating division of Sigma-Aldrich, Inc. (incorporated by reference to Exhibit 10.12 to Vascular Solutions' Form 10-K for the year ended December 31, 2004).
- 10.12** Amendment to Supply Agreement dated December 15, 2006 by and between Vascular Solutions and Sigma-Aldrich Fine Chemicals, an operating division of Sigma-Aldrich, Inc. (incorporated by reference to Exhibit 10.12 of Vascular Solutions' Form 10-K for the year ended December 31, 2006).
- 10.13 Loan and Security Agreement dated December 31, 2003 by and between Vascular Solutions and Silicon Valley Bank (incorporated by reference to Exhibit 10.14 of Vascular Solutions' Form 10-K for the year ended December 31, 2003).
- 10.14 Amendment to Loan Agreement dated December 9, 2004 by and between Vascular Solutions and Silicon Valley Bank (incorporated by reference to Exhibit 10.15 of Vascular Solutions' Form 10-K for the year ended December 31, 2004).
- 10.15 Amendment to Loan Agreement dated December 29, 2005 by and between Vascular Solutions and Silicon Valley Bank (incorporated by reference to Exhibit 10.14 of Vascular Solutions' Form 10-K for the year ended December 31, 2005).
- 10.16 Amendment to Loan Agreement dated December 28, 2006 by and between Vascular Solutions and Silicon Valley Bank (incorporated by reference to Exhibit 10.17 of Vascular Solutions' Form 10-K for the year ended December 31, 2006).
- 10.17 Amendment to Loan and Security Agreement dated April 23, 2007 by and between Vascular Solutions and Silicon Valley Bank (incorporated by reference to Exhibit 10.1 of Vascular Solutions' Form 10-Q for the quarter ended March 31, 2007).
- 10.18 Amendment to Loan Agreement dated December 26, 2007 by and between Vascular Solutions and Silicon Valley Bank (incorporated by reference to Exhibit 10.22 of Vascular Solutions' Form 10-K for the year December 31, 2007).
- 10.19* Form of Incentive Stock Option Agreement (incorporated by reference to Exhibit 10.1 of Vascular Solutions' Form 8-K dated September 22, 2004).
- 10.20* Form of Nonqualified Stock Option Agreement (incorporated by reference to Exhibit 10.2 of Vascular Solutions' Form 8-K dated September 22, 2004).
- 10.21* Form of Board of Directors Stock Option Agreement, as amended December 9, 2005 (incorporated by reference to Exhibit 10.2 of Vascular Solutions' Form 8-K dated December 9, 2005).
- 10.22* Form of Restricted Stock Award Agreement (incorporated by reference to Exhibit 10.3 of Vascular Solutions' Form 8-K dated December 9, 2005).
- 10.23 License agreement dated January 9, 2007 by and between Vascular Solutions and King Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.22 of Vascular Solutions' Form 10-K for the year ended December 31, 2006).
- 10.24** Device Supply agreement dated January 9, 2007 by and between Vascular Solutions and King Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.23 of Vascular Solutions' Form 10-K for the year ended December 31, 2006).

- 10.25** Thrombin-JMI® Supply Agreement dated January 9, 2007 by and between Vascular Solutions and King Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.24 of Vascular Solutions' Form 10-K for the year ended December 31, 2006).
- 10.26* Vascular Solutions, Inc. Stock Option and Stock Award Plan, as amended January 25, 2006, effective April 18, 2006 (incorporated by reference to Exhibit 10.1 of Vascular Solutions' Form 10-Q for the quarter ended March 31, 2006).
- 10.27 Settlement Agreement dated April 8, 2008 between Vascular Solutions, Inc. and Diomed, Inc. (incorporated by reference to Exhibit 10.1 of Vascular Solutions' Form 8-K dated April 10, 2008).
- 10.2** Settlement Agreement dated June 2, 2008 among VNUS Medical Technologies, Inc., AngioDynamics, Inc. and Vascular Solutions, Inc. (incorporated by reference to Exhibit 10.2 of Vascular Solutions' Form 10-Q for the quarter ended June 30, 2008).
- 10.29* Separation Agreement and General Release, dated August 15, 2008, between Deborah L. Neymark and Vascular Solutions, Inc. (incorporated by reference to Exhibit 10.1 of Vascular Solutions' Form 8-K dated August 15, 2008).
- 14 Revised and Restated Code of Ethics (incorporated by reference to Exhibit 14 of Vascular Solutions' Form 8-K dated January 29, 2008).
- 21 List of Subsidiaries
- 23.1 Consent of Virchow, Krause & Company, LLP.
- 24.1 Power of Attorney (included on signature page).
- 31.1 Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* Management contract or compensatory plan or arrangement required to be filed as an Exhibit to this Form 10-K.

** Pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended, confidential portions of these exhibits have been deleted and filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 3rd day of February 2009.

VASCULAR SOLUTIONS, INC.

By: /s/ Howard Root
Howard Root
Chief Executive Officer and Director

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Howard Root and James Hennen (with full power to act alone), as his true and lawful attorneys-in-fact and agents, with full powers of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to the Annual Report on Form 10-K of Vascular Solutions, Inc. for the year ended December 31, 2008, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed on the 3rd day of February 2009, by the following persons in the capacities indicated.

<u>Signature</u>	<u>Title</u>
<u>/s/ Howard Root</u> Howard Root	Chief Executive Officer and Director (<i>principal executive officer</i>)
<u>/s/ James Hennen</u> James Hennen	Vice President, Finance and Chief Financial Officer and Secretary (<i>principal financial officer</i>)
<u>/s/ Timothy Slayton</u> Timothy Slayton	Controller (<i>principal accounting officer</i>)
<u>/s/ Richard Nigon</u> Richard Nigon	Director
<u>/s/ Michael Kopp</u> Michael Kopp	Director
<u>/s/ Paul O'Connell</u> Paul O'Connell	Director
<u>/s/ John Erb</u> John Erb	Director
<u>/s/ Dr. Jorge Saucedo</u> Dr. Jorge Saucedo	Director
<u>/s/ Ms. Charmaine Sutton</u> Ms. Charmaine Sutton	Director

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
Vascular Solutions, Inc.

Under date of February 3, 2009, we reported on the consolidated balance sheets of Vascular Solutions, Inc. as of December 31, 2008 and 2007, and the related consolidated statements of operations, changes in shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2008, as contained in the annual report on Form 10-K for the year ended December 31, 2008. In connection with our audits of the aforementioned consolidated financial statements, we have also audited the related financial statement schedule as listed in the accompanying index. This financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement schedule based on our audits.

In our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ Virchow, Krause & Company, LLP

Minneapolis, Minnesota
February 3, 2009

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS
YEARS ENDED DECEMBER 31, 2008, 2007 AND 2006

Description	Balance at Beginning of Year	Additions Charged to Costs and Expenses	Less Deductions	Balance at End of Year
YEAR ENDED DECEMBER 31, 2008:				
Sales return allowance	\$ 40,000	\$ —	\$ (15,000)	\$ 25,000
Allowance for doubtful accounts	90,000	58,000	(53,000)	95,000
Total	<u>\$ 130,000</u>	<u>\$ 58,000</u>	<u>\$ (68,000)</u>	<u>\$ 120,000</u>
YEAR ENDED DECEMBER 31, 2007:				
Sales return allowance	\$ 45,000	\$ —	\$ (5,000)	\$ 40,000
Allowance for doubtful accounts	65,000	37,000	(12,000)	90,000
Total	<u>\$ 110,000</u>	<u>\$ 37,000</u>	<u>\$ (17,000)</u>	<u>\$ 130,000</u>
YEAR ENDED DECEMBER 31, 2006:				
Sales return allowance	\$ 30,000	\$ 107,000	\$ (92,000)	\$ 45,000
Allowance for doubtful accounts	110,000	(16,000)	(29,000)	65,000
Total	<u>\$ 140,000</u>	<u>\$ 91,000</u>	<u>\$ (121,000)</u>	<u>\$ 110,000</u>

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders, Audit Committee and Board of Directors
Vascular Solutions, Inc.
Minneapolis, MN

We have audited the accompanying consolidated balance sheets of Vascular Solutions, Inc. as of December 31, 2008 and 2007, and the related consolidated statements of operations, shareholders' equity and cash flows for each of the years in the three-year period ended December 31, 2008. We also have audited Vascular Solutions, Inc.'s internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO)*. Vascular Solutions, Inc.'s management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting included in Item 9A Controls and Procedures. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Vascular Solutions, Inc. as of December 31, 2008 and 2007, and the consolidated results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2008 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, Vascular Solutions, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO)*.

/s/ Virchow, Krause & Company, LLP

Minneapolis, Minnesota
February 3, 2009

Vascular Solutions, Inc.

Consolidated Balance Sheets

	December 31	
	2008	2007
Assets		
Current assets:		
Cash and cash equivalents	\$ 7,209,000	\$ 5,286,000
Restricted cash	—	5,473,000
Accounts receivable, net of reserves of \$120,000 and \$130,000 at December 31, 2008 and 2007, respectively	8,706,000	7,363,000
Inventories	9,974,000	8,307,000
Prepaid expenses	1,045,000	810,000
Current portion of deferred tax assets	2,680,000	—
Total current assets	29,614,000	27,239,000
Property and equipment, net	3,887,000	3,846,000
Intangible assets, net	193,000	193,000
Deferred tax assets, net of current portion and liabilities	10,486,000	—
Total assets	\$44,180,000	\$31,278,000
Liabilities and shareholders' equity		
Current liabilities:		
Accounts payable	\$ 2,022,000	\$ 2,021,000
Accrued compensation	2,584,000	2,766,000
Accrued expenses	848,000	936,000
Accrued royalties	576,000	178,000
Litigation provision	—	5,219,000
Current portion of long-term debt	—	800,000
Current portion of deferred revenue	907,000	789,000
Total current liabilities	6,937,000	12,709,000
Long-term liabilities:		
Long-term debt, net of current portion	—	67,000
Long-term deferred revenue, net of current portion	5,417,000	5,649,000
Deferred tax liability	—	28,000
Total long-term liabilities	5,417,000	5,744,000
Commitments and contingencies		
Shareholders' equity:		
Common stock, \$0.01 par value:		
Authorized shares – 40,000,000		
Issued and outstanding shares – 16,027,519 – 2008;		
15,606,656 – 2007	160,000	156,000
Additional paid-in capital	85,292,000	82,456,000
Other	84,000	96,000
Accumulated deficit	(53,710,000)	(69,883,000)
Total shareholders' equity	31,826,000	12,825,000
Total liabilities and shareholders' equity	\$44,180,000	\$31,278,000

See accompanying notes.

Vascular Solutions, Inc.

Consolidated Statements of Operations

	Year Ended December 31		
	2008	2007	2006
Revenue:			
Product revenue	\$ 59,757,000	\$ 51,414,000	\$ 43,310,000
License and collaboration revenue	1,464,000	1,450,000	—
Total revenue	61,221,000	52,864,000	43,310,000
Product costs and operating expenses:			
Cost of goods sold	20,690,000	17,002,000	14,231,000
Cost of goods sold related to thrombin inventory	670,000	—	—
Collaboration expenses	632,000	685,000	—
Research and development	6,333,000	5,481,000	4,578,000
Clinical and regulatory	3,220,000	3,168,000	2,493,000
Sales and marketing	20,482,000	19,603,000	17,097,000
General and administrative	4,695,000	5,304,000	3,716,000
Litigation	1,484,000	5,800,000	—
Thrombin qualification	—	147,000	2,802,000
Amortization of purchased technology	—	—	72,000
Total product costs and operating expenses	58,206,000	57,190,000	44,989,000
Operating income (loss)	3,015,000	(4,326,000)	(1,679,000)
Other income (expenses):			
Interest income	203,000	444,000	99,000
Interest expense	(62,000)	(148,000)	(206,000)
Foreign exchange loss	(28,000)	—	—
Income (loss) before income taxes	3,128,000	(4,030,000)	(1,786,000)
Income tax benefit (expense)	13,045,000	(276,000)	—
Net income (loss)	\$ 16,173,000	\$ (4,306,000)	\$ (1,786,000)
Basic net income (loss) per common share	\$1.04	\$(0.28)	\$(0.12)
Diluted net income (loss) per common share	\$1.01	\$(0.28)	\$(0.12)
Shares used in computing basic net income (loss) per common share	15,588,135	15,237,836	14,910,135
Shares used in computing diluted net income (loss) per common share	15,954,631	15,237,836	14,910,135

See accompanying notes.

Vascular Solutions, Inc.

Consolidated Statements of Changes in Shareholders' Equity

	Common Stock		Additional		Accumulated	
	Shares	Amount	Paid-In	Other	Deficit	Total
Balance at December 31, 2005	14,642,225	\$147,000	\$77,793,000	\$ (42,000)	\$(63,791,000)	\$14,107,000
Exercise of stock options	251,722	2,000	375,000	—	—	377,000
Issuance of common stock under the Employee Stock Purchase Plan	88,484	1,000	574,000	—	—	575,000
Stock option compensation	158,750	1,000	1,087,000	—	—	1,088,000
Deferred compensation related to option grants	—	—	12,000	(12,000)	—	—
Amortization of deferred compensation	—	—	—	31,000	—	31,000
Comprehensive loss:						
Net loss	—	—	—	—	(1,786,000)	(1,786,000)
Translation adjustment	—	—	—	75,000	—	75,000
Total comprehensive loss						(1,711,000)
Balance at December 31, 2006	15,141,181	151,000	79,841,000	52,000	(65,577,000)	14,467,000
Exercise of stock options	208,781	2,000	473,000	—	—	475,000
Issuance of common stock under the Employee Stock Purchase Plan	102,194	1,000	666,000	—	—	667,000
Stock option compensation	154,500	2,000	1,455,000	—	—	1,457,000
Deferred compensation related to option grants	—	—	21,000	(21,000)	—	—
Amortization of deferred compensation	—	—	—	26,000	—	26,000
Comprehensive loss:						
Net loss	—	—	—	—	(4,306,000)	(4,306,000)
Translation adjustment	—	—	—	39,000	—	39,000
Total comprehensive loss						(4,267,000)
Balance at December 31, 2007	15,606,656	156,000	82,456,000	96,000	(69,883,000)	12,825,000
Exercise of stock options	184,860	2,000	617,000	—	—	619,000
Issuance of common stock under the Employee Stock Purchase Plan	133,274	1,000	701,000	—	—	702,000
Stock option compensation	130,000	1,000	1,676,000	—	—	1,677,000
Cancellation of common stock upon the vesting of restricted shares	(27,271)	—	(158,000)	—	—	(158,000)
Amortization of deferred compensation	—	—	—	9,000	—	9,000
Comprehensive income:						
Net income	—	—	—	—	16,173,000	16,173,000
Translation adjustment	—	—	—	(21,000)	—	(21,000)
Total comprehensive income						16,152,000
Balance at December 31, 2008	16,027,519	\$160,000	\$85,292,000	\$84,000	\$(53,710,000)	\$31,826,000

See accompanying notes.

Vascular Solutions, Inc.

Consolidated Statements of Cash Flows

	Year Ended December 31		
	2008	2007	2006
Operating activities			
Net income (loss)	\$16,173,000	\$(4,306,000)	\$(1,786,000)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Depreciation	1,469,000	1,376,000	994,000
Amortization	—	—	72,000
Stock-based compensation	1,677,000	1,457,000	1,088,000
Deferred compensation expense	9,000	26,000	31,000
Deferred taxes, net	(13,194,000)	28,000	—
Loss on disposal of fixed assets	26,000	—	—
Change in accounts receivable allowance	(10,000)	20,000	(30,000)
Changes in operating assets and liabilities:			
Accounts receivable	(1,330,000)	(848,000)	(1,626,000)
Inventories	(1,667,000)	(1,080,000)	(234,000)
Prepaid expenses	(235,000)	(14,000)	(212,000)
Accounts payable	1,000	758,000	(1,638,000)
Accrued compensation and expenses	(5,091,000)	5,524,000	581,000
Deferred license fees received	731,000	7,000,000	—
Amortization of deferred license fees and other deferred revenue	(845,000)	(562,000)	—
Net cash provided by (used in) operating activities	(2,286,000)	9,379,000	(2,760,000)
Investing activities			
Purchase of property and equipment, net	(1,536,000)	(1,545,000)	(1,704,000)
Cash deposits transferred from (to) restricted cash	5,473,000	(5,473,000)	—
Net cash provided by (used in) investing activities	3,937,000	(7,018,000)	(1,704,000)
Financing activities			
Net proceeds from the exercise of stock options and stock warrants	619,000	475,000	377,000
Net proceeds from the sale of common stock, employee stock purchase plan	702,000	667,000	575,000
Proceeds from borrowings on long-term debt	—	—	2,000,000
Payments on long-term debt borrowings	(867,000)	(800,000)	(333,000)
Repurchase of common shares	(158,000)	—	—
Net cash provided by financing activities	296,000	342,000	2,619,000
Effect of exchange rate changes on cash and cash equivalents	(24,000)	26,000	120,000
Increase (decrease) in cash and cash equivalents	1,923,000	2,729,000	(1,725,000)
Cash and cash equivalents at beginning of year	5,286,000	2,557,000	4,282,000
Cash and cash equivalents at end of year	\$ 7,209,000	\$ 5,286,000	\$ 2,557,000

Vascular Solutions, Inc.

Consolidated Statements of Cash Flows (Continued)

	Year Ended December 31		
	2008	2007	2006
Supplemental disclosure of cash flow			
Cash paid for interest	\$ 68,000	\$ 155,000	\$ 192,000
Cash paid for taxes	\$ 252,000	\$ 149,000	\$ —

See accompanying notes.

1. Description of Business

Vascular Solutions, Inc. (the Company) is a medical device company focused on bringing clinically advanced solutions to interventional cardiologists and interventional radiologists. The Company's main product lines consist of the following:

- Hemostatic (blood clotting) products, principally consisting of the D-Stat Dry™ hemostat, a topical thrombin-based pad with a bandage used to control surface bleeding, and the D-Stat® Flowable, a thick yet flowable thrombin-based mixture for preventing bleeding in subcutaneous pockets,
- Extraction catheters, principally consisting of the Pronto® V3 extraction catheter, a mechanical system for the removal of soft thrombus from arteries,
- Vein products, principally consisting of the Vari-Lase® endovenous laser, a laser and procedure kit used for the treatment of varicose veins,
- Specialty catheters, consisting of a variety of catheters for clinical niches including the Langston® dual lumen catheters, Twin-Pass® dual access catheters, Gandras™ catheters and Gopher™ support catheters, and
- Access products, principally consisting of micro-introducer kits, the Micro Elite™ snare, the Expro Elite™ snare, the Guardian® hemostatic valve, and guidewires used in connection with percutaneous access to the vasculature.

As a vertically-integrated medical device company, the Company generates ideas and creates new interventional medical devices and then delivers the products directly to the physician through a direct domestic sales force and an international distribution network. The Company was incorporated in the state of Minnesota in December 1996 and began operations in February 1997.

2. Summary of Significant Accounting Policies

Basis of Consolidation

The consolidated financial statements include the accounts of Vascular Solutions, Inc. and its wholly owned subsidiary, Vascular Solutions GmbH, after elimination of intercompany accounts and transactions.

Segment Reporting

A business segment is a distinguishable component of an enterprise that is engaged in providing an individual product or service or a group of related products or services and that is subject to risks and returns that are different from those of other business segments. The Company's segments have similar economic characteristics and are similar in the nature of the products sold, type of customers, methods used to distribute the Company's products and regulatory environment. Management believes that the Company meets the criteria for aggregating its operating segments into a single reporting segment.

2. Summary of Significant Accounting Policies (Continued)

Our primary products are categorized into five product lines. The following table sets forth, for the periods indicated, net revenue by product line along with the percent change from the previous year:

	For Years Ended December 31,					
	2008		2007		2006	
	Net Revenue	Percent Change	Net Revenue	Percent Change	Net Revenue	Percent Change
Hemostat products	\$23,475,000	(5%)	\$24,712,000	14%	\$21,709,000	9%
Extraction catheters	14,992,000	36%	11,016,000	22%	9,058,000	42%
Vein products	10,035,000	16%	8,629,000	22%	7,049,000	62%
Specialty catheters	4,563,000	36%	3,363,000	8%	3,126,000	202%
Access products	5,561,000	99%	2,790,000	74%	1,604,000	140%
Other products	1,131,000	25%	904,000	18%	764,000	40%
License & Collaboration	1,464,000	1%	1,450,000	N/A	-	-
Total Net Revenue	<u>\$61,221,000</u>	<u>16%</u>	<u>\$52,864,000</u>	<u>22%</u>	<u>\$43,310,000</u>	<u>32%</u>

Foreign Currency Translation and Transactions

The Company's German subsidiary Vascular Solutions, GmbH accounted for its transactions in its functional currency, the Euro. Foreign assets and liabilities are translated into United States dollars using the year-end exchange rates. Equity is translated at average historical exchange rates. Results of operations are translated using the average exchange rates throughout the year. Translation gains or losses are accumulated as a separate component of shareholders' equity.

Effective April 1, 2008 the Company began to sell products to a new international distributor in Germany at prices denominated in Euros. The Company also purchases a small number of inventory items at prices denominated in Euros. As a result, the Company is exposed to foreign exchange movements during the time between the shipment of the product and payment. The Company currently has terms of net 60 days with this distributor and net 30 days with vendors under the agreements providing for payments in Euros.

Comprehensive Loss

The components of comprehensive income (loss) are net income (loss) and the effects of foreign currency translation adjustments. The accumulated other comprehensive income (loss) for the foreign currency translation adjustment at December 31, 2008 and 2007 was \$84,000 and \$105,000, respectively.

Fair Value of Financial Instruments

The carrying amount for cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses approximates fair value due to the immediate or short-term maturity of these financial instruments. The fair value of long-term debt approximated their carrying value because the terms are equivalent to borrowing rates currently available to the Company for debt with similar terms and maturities.

2. Summary of Significant Accounting Policies (Continued)

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of deferred tax assets and liabilities, as well as other amounts in the financial statements and accompanying notes. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company classifies all highly liquid investments with initial maturities of three months at the date of purchase or less as cash equivalents. Cash equivalents consist of cash and money market funds and are stated at cost, which approximates market value. The Company deposits its cash in high quality financial institutions. The balances, at times, may exceed federally insured limits.

Restricted Cash

Under an investment management agreement with Wells Fargo Bank, N.A., effective June 19, 2007, the Company set aside \$5,473,000 as restricted cash in connection with the judgment in the Diomed, Inc. litigation case as more fully discussed below in Note 14, Commitments and Contingencies. Upon settlement of the lawsuit on April 8, 2008, a portion of the restricted cash was paid to the bankruptcy estate of Diomed and the remaining restricted cash was returned to the Company on June 10, 2008 and the account was closed.

Credit Risk and Allowance for Doubtful Accounts

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. This allowance is regularly evaluated by the Company for adequacy by taking into consideration factors such as past experience, credit quality of the customer base, age of the receivable balances, both individually and in the aggregate, and current economic conditions that may affect a customer's ability to pay. Accounts receivable over 60 days past due are considered past due. The Company does not accrue interest on past due accounts receivable. Receivables are written off only after all collection attempts have failed and are based on individual credit evaluation and the specific circumstances of the customer. At December 31, 2008 and 2007, the allowance for doubtful accounts was \$95,000 and \$90,000, respectively.

All product returns must be pre-approved and, if approved, customers are subject to a 20% restocking charge. The Company analyzes the rate of historical returns when evaluating the adequacy of the allowance for sales returns, which is included with the allowance for doubtful accounts on its balance sheet. At December 31, 2008 and 2007, the sales and return allowance was \$25,000 and \$40,000, respectively.

Accounts receivable are shown net of the combined total of the allowance for doubtful accounts and allowance for sales returns of \$120,000 and \$130,000 at December 31, 2008 and 2007, respectively.

2. Summary of Significant Accounting Policies (Continued)

Inventories

Inventories are stated at the lower of cost (first-in, first-out method) or market. Appropriate consideration is given to deterioration, obsolescence and other factors in evaluating net realizable value. Inventories are comprised of the following at December 31:

	2008	2007
Raw materials	\$4,943,000	\$4,119,000
Work-in-process	871,000	650,000
Finished goods	4,160,000	3,538,000
	<u>\$9,974,000</u>	<u>\$8,307,000</u>

Cost of sales related to thrombin inventory expenses were \$670,000 for the year ended December 31, 2008. Cost of sales related to thrombin inventory expenses relate to a reserve the Company has recorded for the amount of thrombin the Company anticipates will expire prior to being used in the manufacturing of international hemostat products. The Company does not anticipate incurring additional charges related to thrombin inventory during 2009.

Property and Equipment

Property and equipment are stated at cost. Depreciation is provided on a straight-line basis over the estimated useful lives of the assets as follows:

Manufacturing equipment	1 to 8 years
Office and computer equipment	1 to 5 years
Furniture and fixtures	3 to 8 years
Leasehold improvements	Shorter of useful life or remaining term of the lease
Research and development equipment	3 to 7 years

Impairment of Long-Lived Assets

The Company will record impairment losses on long-lived assets used in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount. The amount of impairment loss recorded will be measured as the amount by which the carrying value of the assets exceeds the fair value of the assets. To date, the Company has determined that no impairment of long-lived assets exists.

Revenue Recognition

In the United States the Company sells its products directly to hospitals and clinics. Revenue is recognized in accordance with generally accepted accounting principles as outlined in the Securities and Exchange Commission's Staff Accounting Bulletin No. 104, *Revenue Recognition* (SAB 104), which requires that four basic criteria be met before revenue can be recognized: (i) persuasive evidence of an arrangement exists; (ii) the price is fixed or determinable; (iii) collectibility is reasonably assured; and (iv) product delivery has occurred or services have been rendered. The Company recognizes revenue as products are shipped based on FOB shipping point terms when title passes to customers. The Company negotiates credit terms on a customer-by-customer basis and

2. Summary of Significant Accounting Policies (Continued)

products are shipped at an agreed-upon price. All product returns must be pre-approved and, if approved, customers are subject to a 20% restocking charge.

In all international markets, the Company sells its products to international distributors which subsequently resell the products to hospitals and clinics. The Company has agreements with each of its distributors which provide that title and risk of loss pass to the distributor upon shipment of the products to the distributor. The Company warrants that its products are free from manufacturing defects at the time of shipment to the distributor. Revenue is recognized upon shipment of products to distributors following the receipt and acceptance of a distributor's purchase order. Allowances are provided for estimated returns and warranty costs at the time of shipment. Sales and use taxes are reported on a net basis, excluding them from revenue.

The Company's revenues from license agreements and research collaborations are recognized when earned (see Note 14). In accordance with Emerging Issues Task Force (EITF) Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*, for deliverables which contain multiple deliverables, the Company separates the deliverables into separate accounting units if they meet the following criteria: (i) the delivered items have a stand-alone value to the customer; (ii) the fair value of any undelivered items can be reliably determined; and (iii) if the arrangement includes a general right of return, delivery of the undelivered items is probable and substantially controlled by the seller. Deliverables that do not meet these criteria are combined with one or more other deliverables into one accounting unit. Revenue from each accounting unit is recognized based on the applicable accounting literature, primarily Staff Accounting Bulletin (SAB) 104, *Revenue Recognition*.

The Company currently has a license agreement with King Pharmaceuticals, Inc. (King) under which the Company licensed the exclusive rights of Thrombi-PadTM, Thrombi-Gel[®] and Thrombi-PasteTM products to King in exchange for a license fee. The Company is amortizing the license fees on a straight-line basis over the projected 10 year economic life of the products. The Company determines the economic life of the products under its license agreements by evaluating similar products the Company has launched or other similar products in the medical industry. In addition, the Company has a five-year license agreement with Nicolai, GmbH in which the Company is amortizing the license fee on a straight-line basis over the five-year life of the agreement.

As part of the agreements with King, the Company agreed to conduct clinical studies for the Thrombi-Gel and Thrombi-Paste products, with the costs related to the clinical studies paid by King. Additionally, on May 18, 2007, the Company entered into a Product Development & Supply Agreement with a third party company pursuant to which the Company agreed to develop, manufacture and sell to this company a specialty version of its Twin-Pass dual access catheter, with the costs related to the development paid by this company. The Company will recognize the collaboration revenue on these development agreements as it is earned in accordance with Emerging Issues Task Force 01-14, *Income Statement Characterizations of Reimbursements Received for "Out-of-Pocket" Expenses Incurred* and SAB104

In addition, the Company has reviewed the provisions of EITF Issue No. 07-01, *Accounting for Collaborative Arrangements*, and believes the adoption of this EITF will have no impact on the amounts recorded under these agreements.

Shipping and Handling Costs

In accordance with the Emerging Issues Task Force (EITF) issue 00-10, *Accounting for Shipping and Handling Fees and Costs*, the Company includes shipping and handling revenues in net sales and shipping and handling costs in cost of goods sold.

2. Summary of Significant Accounting Policies (Continued)

Research and Development Costs

All research and development costs are charged to operations as incurred.

Warranty Costs

Certain of the Company's products are covered by warranties against defects in material and workmanship for periods of up to 24 months. The Company records a liability for warranty claims at the time of sale. The amount of the liability is based on the amount the Company is charged from its original equipment manufacturer to cover the warranty period. The original equipment manufacturer includes a one year warranty with each product sold to the Company. The Company records a liability for the uncovered warranty period offered to a customer, provided the warranty period offered exceeds the initial one year warranty period covered by the original equipment manufacturer.

Warranty provisions and claims for the years ended December 31, 2008, 2007 and 2006, were as follows:

	2008	2007	2006
Beginning balance	\$34,000	\$46,000	\$50,000
Warranty provisions	66,000	28,000	19,000
Warranty claims	(51,000)	(40,000)	(23,000)
Ending balance	\$49,000	\$34,000	\$46,000

Advertising Costs

The Company follows the policy of charging production costs of advertising to expense as incurred. Advertising expense was \$110,000, \$77,000, and \$50,000 for the years ended December 31, 2008, 2007 and 2006, respectively.

Stock-Based Compensation

The Company has various types of stock-based compensation plans. These plans are administered by the compensation committee of the Board of Directors, which selects persons to receive awards and determines the number of shares subject to each award and the terms, conditions, performance measures and other provisions of the award. Refer to Notes 8, 9 and 10 for additional information related to these stock-based compensation plans.

Effective January 1, 2006, the Company adopted Statement No. 123R, *Share-Based Payment* (SFAS 123R), which requires companies to measure and recognize compensation expense for all stock-based payments at fair value. SFAS 123R is being applied on the modified prospective basis. Prior to the adoption of SFAS 123R, the Company accounted for its stock-based compensation plans under the recognition and measurement principles of Accounting Principles Board (APB) Opinion No. 25, *Accounting for Stock Issued to Employees*, and related interpretations, and accordingly, recognized no compensation expense related to the stock-based plans.

Under the modified prospective approach, SFAS 123R applies to new awards and to awards that were outstanding on January 1, 2006 that are subsequently modified, repurchased, cancelled or vest. Under the modified prospective approach, compensation cost recognized in 2006 includes compensation cost for all share-based payments granted prior to, but not yet vested on, January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R, and compensation cost for all shared-based payments granted

2. Summary of Significant Accounting Policies (Continued)

subsequent to January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R. Prior periods were not restated to reflect the impact of adopting the new standard.

The following amounts have been recognized as stock-based compensation expense in the Consolidated Statements of Operations:

	2008	2007	2006
Stock-based compensation included in:			
Cost of goods sold	\$ 207,000	\$ 154,000	\$ 122,000
Research and development	170,000	164,000	174,000
Clinical and regulatory	132,000	102,000	89,000
Sales and marketing	601,000	422,000	362,000
General and administrative	567,000	615,000	341,000
	<u>\$ 1,677,000</u>	<u>\$ 1,457,000</u>	<u>\$ 1,088,000</u>

The Company uses the Black-Scholes option-pricing model to estimate fair value of stock-based awards with the following weighted average assumptions:

	2008	2007	2006
<i>Stock Options and Awards:</i>			
Expected life (years)	5.50	5.50	5.50
Expected volatility	50%	51%	41%
Dividend yield	0%	0%	0%
Risk-free interest rate	2.75%	4.64%	4.62%
<i>Employee Stock Purchase Plan:</i>			
Expected life (years)	2.0	2.0	2.0
Expected volatility	42%	36%	36%
Dividend yield	0%	0%	0%
Risk-free interest rate	2.04%	3.48%	4.75%

Restricted stock awards fair value is calculated as the market price on the date of grant for the years ended December 31, 2008 and 2007 and the fair value is amortized on a straight line basis over the requisite service period of four years for the award. The weighted average fair value of restricted stock awards granted during 2008, 2007 and 2006 was \$6.09, \$10.37 and \$5.42, respectively.

The weighted average fair value of stock options granted with an exercise price equal to the deemed stock price on the date of grant during 2008, 2007 and 2006 was \$2.82, \$4.51 and \$5.42, respectively.

The Company calculates expected volatility for stock options and awards using historical volatility. The starting point for the historical period used is based on a material change in the Company's operations that occurred in the third quarter of 2003. The Company uses a 10% forfeiture rate for key employees and a 15% forfeiture rate for non-key employees for stock options and awards. The Company calculates expected volatility for employee stock purchase plan shares using historical volatility over a two-year period. A two-year period is used to coincide with the maximum two-year offering period under the employee stock purchase plan.

The risk-free rates for the expected terms of the stock options and awards and the employee stock purchase plan is based on the U.S. Treasury yield curve in effect at the time of grant.

2. Summary of Significant Accounting Policies (Continued)

Income Taxes

Income taxes are accounted for under the liability method. Deferred income taxes are provided for temporary differences between the financial reporting and the tax bases of assets and liabilities. Deferred tax assets are reduced by a valuation allowance to the extent that realization of the related deferred tax asset is not assured. If the Company determines in the future that it is more likely than not that the Company will realize all or a portion of the deferred tax assets, the Company will adjust the valuation allowance in the period the determination is made (Note 7).

When tax returns are filed, it is highly certain that some positions taken would be sustained upon examination by the taxing authorities, while others are subject to uncertainty about the merits of the position taken or the amount of the position that would be ultimately sustained. The benefit of a tax position is recognized in the financial statements in the period during which, based on all available evidence, management believes it is more likely than not that the position will be sustained upon examination, including the resolution of appeals or litigation processes, if any. Tax positions taken are not offset or aggregated with other positions. Tax positions that meet the more-likely-than-not recognition threshold are measured as the largest amount of tax benefit that is more than 50 percent likely of being realized upon settlement with the applicable taxing authority. The portion of the benefits associated with tax positions taken that exceeds the amount measured as described above is reflected as a liability for unrecognized tax benefits in the accompanying balance sheet along with any associated interest and penalties that would be payable to the taxing authorities upon examination.

In July 2006, the Financial Accounting Standards Board (FASB) issued FASB Interpretation 48 (FIN 48), *Accounting for Uncertainty in Income Taxes — an Interpretation of FASB Statement No. 109*, which clarifies the accounting for uncertain income tax positions. This interpretation prescribes a financial statement recognition threshold and measurement attribute for any tax position taken or expected to be taken in a tax return. The interpretation also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. Effective January 1, 2007, the Company adopted FIN 48. Upon adoption, the Company had \$425,000 of unrecognized income tax benefits and the adoption of FIN 48 had no effect on shareholders' equity. The Company has recorded FIN 48 reserves of \$597,000 and \$512,000 at December 31, 2008 and 2007. The impact of tax related interest and penalties is recorded as a component of income tax expense. At December 31, 2008, the Company has recorded \$-0- for the payment of tax related interest and there were no tax penalties or interest recognized in the statements of operations.

Net Income (Loss) Per Common Share

In accordance with SFAS No. 128, *Earnings Per Share*, basic net income (loss) per common share is computed by dividing net income (loss) by the weighted average common shares outstanding during the periods presented. Diluted net income (loss) per common share is computed by dividing net income (loss) by the weighted average common and potential dilutive common shares outstanding computed in accordance with the treasury stock method.

The number of shares used in earnings per share computations is as follows for the years ended December 31:

	2008	2007	2006
Weighted average common shares outstanding— basic	15,588,135	15,237,836	14,910,135
Dilutive effect of stock options and warrants	366,496	—	—
Weighted average common shares outstanding— diluted	15,954,631	15,237,836	14,910,135

2. Summary of Significant Accounting Policies (Continued)

The dilutive effect of stock options and warrants in the above table excludes 448,500, 441,500, and 445,920 of options and warrants for which the exercise price was higher than the average market price for the years ended December 31, 2008, 2007 and 2006, respectively. In addition, dilutive potential common shares of 1,017,400 and 1,065,716 were excluded from diluted weighted average common shares outstanding for the year ended December 31, 2007 and 2006, respectively as they would be anti-dilutive due to the Company's net loss for those years.

Goodwill and Other Intangible Assets

In fiscal 2002, the Company adopted SFAS No. 142, *Goodwill and Other Intangible Assets*. Goodwill is tested for impairment annually in the fourth quarter or more frequently if changes in circumstances or the occurrence of events suggest impairment exists. The Company has concluded that no impairment of goodwill existed as of December 31, 2008.

Other intangible assets consist of purchased technology. Purchased technology was amortized using the straight-line method over its estimated useful life of four years. The Company reviewed intangible assets for impairment as changes in circumstances or the occurrence of events suggested the remaining value was not recoverable.

Leases and Deferred Rent

The Company leases all office space. Leases are accounted for under the provisions of SFAS No. 13, "Accounting for Leases," as amended, which requires that leases be evaluated and classified as operating or capital leases for financial reporting purposes. As of December 31, 2008, all of our leases were accounted for as operating leases. For leases that contain rent escalations, we record the total rent payable during the lease term, as determined above, on a straight-line basis over the term of the lease and record the difference between the rents paid and the straight-line rent as a deferred rent. For any lease incentives we receive for items such as leasehold improvements, we record a deferred credit for the amount of the lease incentive and amortize it over the lease term, which may or may not equal the amortization period of the leasehold improvements in accordance with FASB Technical Bulletin 88-1 "Issues Relating to Accounting for Leases."

3. Goodwill and Other Intangible Assets

The Company has adopted SFAS No. 141 and determined that the developed technology the Company acquired from Angiosonics, Inc. in April 2002 would be amortized over its useful life of four years. The goodwill acquired will not be amortized. In April 2006, the Company completed the amortization of the purchased technology. Amortization expense of purchased technology was \$-0-, \$-0- and \$72,000 for the years ended December 31, 2008, 2007 and 2006, respectively.

Balances of acquired intangible assets as of December 31, 2008 and 2007 were as follows:

	Carrying Amount	Accumulated Amortization	Net
Amortizing intangibles:			
Purchased technology	\$ 870,000	\$870,000	\$ —
Non-amortizing intangibles:			
Goodwill	193,000	—	193,000
	<u>\$1,063,000</u>	<u>\$870,000</u>	<u>\$193,000</u>

4. Property and Equipment

Property and equipment consists of the following at December 31:

	2008	2007
Property and equipment:		
Manufacturing equipment	\$ 5,067,000	\$ 4,481,000
Office and computer equipment	1,815,000	1,626,000
Furniture and fixtures	463,000	335,000
Leasehold improvements	1,275,000	839,000
Research and development equipment	436,000	380,000
Construction-in-process	213,000	405,000
	<u>9,269,000</u>	<u>8,066,000</u>
Less accumulated depreciation and amortization	(5,382,000)	(4,220,000)
Net property and equipment	<u>\$ 3,887,000</u>	<u>\$ 3,846,000</u>

5. Lines of Credit

On December 26, 2007, the Company modified and extended its secured asset-based loan and security agreement with Silicon Valley Bank dated December 31, 2003 (as previously amended December 28, 2006 and December 29, 2005), consisting of an operating line of credit and an equipment line of credit. The operating line of credit is a two-year, \$10,000,000 facility with availability based primarily on eligible customer receivables and inventory. The interest rate is the greater of prime plus 0.5% or 7.25%. As of December 31, 2008, the Company had no outstanding balance against the operating line of credit. Based on the Company's eligible customer receivables, inventory and cash balances, \$10,000,000 was available for borrowing as of December 31, 2008. The operating line of credit requires an annual fee of 0.25% of the average unused portion of the committed revolving line as determined by the bank and reviewed by management.

The equipment line of credit was paid in full on July 9, 2008 and the Company no longer has the ability to borrow any additional funds under the equipment line of credit portion of the credit facility.

The credit facility includes three covenants: a minimum of \$10,000,000 in tangible net worth, a minimum of \$3,000,000 of unrestricted cash in deposit accounts with Silicon Valley Bank and an adjusted net income for each financial reporting period. The adjusted net income covenant requires an adjusted net income greater than \$500,000 for each rolling three month period for the remaining term of the agreement. The amount required as a minimum tangible net worth will increase by an amount equal to the sum of 50% of the Company's quarterly net profit and all consideration received by the Company upon the issuance of equity securities. The minimum tangible net worth requirement at December 31, 2008 was \$19,642,000. The Company was in compliance with all of the covenants as of December 31, 2008.

6. Leases

The Company leases two buildings totaling approximately 93,000 square-feet under separate operating leases. On November 12, 2007, both leases were amended to extend the terms until September 2015, with options to renew both leases. Rent expense related to the operating leases was approximately \$755,000, \$596,000 and \$481,000 for the years ended December 31, 2008, 2007, and 2006, respectively.

6. Leases (Continued)

Future minimum lease commitments under these operating leases as of December 31, 2008 were as follows:

2009	\$ 749,000
2010	761,000
2011	797,000
2012	809,000
2013	841,000
Thereafter	1,473,000
	<u>\$5,430,000</u>

7. Income Taxes

At December 31, 2008, the Company had net operating loss carryforwards of approximately \$47,080,000 and \$4,911,000 for federal and state income tax purposes that are available to offset future taxable income and begin to expire in the year 2019. Included in the U.S. amount are approximately \$3.0 million of deductions resulting from disqualifying dispositions of stock options. When these deductions from disqualifying dispositions are realized for financial statement purposes they will not result in a reduction in income tax expense, rather the benefit will be recorded as additional paid-in-capital. At December 31, 2008, the Company also had federal research and development tax credit carryforwards of approximately \$3,436,000 and Minnesota research and development tax credit carryforwards of approximately \$838,000, which begin to expire in the year 2012. At December 31, 2008, the Company has foreign tax loss carryforwards of approximately \$1,618,000 that do not expire. The adoption of FIN 48, *Accounting for Uncertainty in Income Taxes*, has had no impact on the reported carryforwards at December 31, 2008.

Utilization in future years of any loss or credit carryforwards may be limited under Sections 382 and 383 of the Internal Revenue Code if significant ownership changes have occurred or from future tax legislation changes. The Company performed a Section 382 study during the third quarter of 2005 on its federal net operating loss carryforward and the Company concluded that it had no limitations on the net operating loss carryforward incurred through 2005. The Company does not believe there has been any significant ownership changes since the date of this testing, therefore there are no restrictions at this time on the future use of the Company's net operating loss carryforwards.

The Company adopted the provisions of FASB Interpretation No. 48 (FIN 48), *Accounting for Uncertainty in Income Taxes - an Interpretation of SFAS No. 109* on January 1, 2007. This interpretation prescribes a financial statement recognition threshold and measurement attribute for any tax position taken or expected to be taken in a tax return. The interpretation also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. Upon adoption, there was \$425,000 of unrecognized income tax benefits and the adoption of FIN 48 had no effect on shareholders' equity. The impact of tax related interest and penalties will be recorded as a component of income tax expense. At December 31, 2008, the Company has accrued zero for the payment of tax related interest and there was no tax interest or penalties recognized in the statements of operations.

The Company is subject to income tax examinations in the U.S. Federal jurisdiction, as well as in the Germany and various state jurisdictions. At December 31, 2008, the Company was not under examination by any of these taxing authorities and the open tax years are 2006 to 2008.

7. Income Taxes (Continued)

A reconciliation of the beginning and ending amount of unrecognized tax benefit is as follows:

Balance at December 31, 2006	\$425,000
Increases as a result of tax positions taken during a prior period	1,000
Increases as a result of tax positions taken during the current period	86,000
Reductions as a result of lapse of the applicable statute of limitations	—
Decreases relating to settlements with taxing authorities	—
Balance at December 31, 2007	512,000
Increases as a result of tax positions taken during a prior period	5,000
Increases as a result of tax positions taken during the current period	80,000
Reductions as a result of lapse of the applicable statute of limitations	—
Decreases relating to settlements with taxing authorities	—
Balance at December 31, 2008	<u>\$597,000</u>

The components of the Company's deferred tax assets and liabilities as of December 31, 2008 and 2007 are as follows:

	2008	2007
Deferred tax assets:		
Net operating loss carryforwards	\$ 19,538,000	\$ 20,258,000
Tax credit carryforwards	4,274,000	3,713,000
Deferred revenue	2,353,000	2,462,000
Litigation	—	2,022,000
Depreciation and amortization	206,000	171,000
Accrued compensation	304,000	299,000
Stock-based compensation	530,000	312,000
Federal and state AMT credits	195,000	207,000
Inventory reserve	334,000	66,000
Other	138,000	74,000
Gross deferred tax assets	27,872,000	29,584,000
Deferred tax liability	(34,000)	(28,000)
Net deferred taxes assets before FIN48 Reserve and valuation allowances	27,838,000	29,556,000
FIN48 Reserve	(597,000)	(512,000)
Less valuation allowances	(14,075,000)	(29,072,000)
Net deferred tax asset / (liability)	<u>\$ 13,166,000</u>	<u>\$ (28,000)</u>
Deferred taxes recorded on the balance sheet:		
Net deferred tax assets / (liabilities) – current	\$ 2,680,000	\$ —
Net deferred tax assets / (liabilities) – long-term	10,486,000	(28,000)
Net deferred tax assets	<u>\$ 13,166,000</u>	<u>\$ (28,000)</u>

The Company regularly assesses the likelihood that the deferred tax assets will be recovered from future taxable income. The Company considers projected future taxable income and ongoing tax planning strategies, then records a valuation allowance to reduce the carrying value of the net deferred taxes to an amount that is more likely than not to be realized. Based upon the Company's assessment of all available evidence, including previous three year cumulative income before unusual and infrequent expenses (litigation and thrombin qualification expenses), estimates of future profitability, and the Company's overall prospects of future business, the Company determined that it is more likely than not that the Company will be able to realize a portion of the

7. Income Taxes (Continued)

deferred tax assets in the future, and as a result recorded a \$13,200,000 income tax benefit for the year ended December 31, 2008. To determine the amount of the reduction in the valuation allowance, the Company used a discounted projection of its revenue and income over the next five years, which would approximate the ten-year life of the Company's three most significant products at this time. The amount of the valuation allowance reduction was based on the Company's projected discounted taxable income. The Company will continue to assess the potential realization of deferred tax assets on an annual basis, or an interim basis if circumstances warrant. If the Company's actual results and updated projections vary significantly from the projections used as a basis for this determination, the Company may need to increase or decrease the valuation allowance against the gross deferred tax assets. The Company would adjust earnings for the deferred tax in the period the determination was made. At December 31, 2008 and 2007, the valuation allowance was \$14,075,000 and \$29,072,000, respectively. Of these amounts, \$530,000 as of December 31, 2008 and \$191,000 as of December 31, 2007 was attributable to increases in the net operating loss carry forwards resulting from the exercise of stock options. These amounts will be recorded as an increase to additional paid-in-capital if it is determined in the future that this portion of the valuation allowance is no longer required. The increase (decrease) in the valuation allowance was (\$14,997,000), \$1,360,000 and \$628,000 for the years ended December 31, 2008, 2007 and 2006, respectively.

Reconciliation of the statutory federal income tax rate to the Company's effective tax rate is as follows:

	2008	2007	2006
Tax at statutory rate	34.0%	(34.0)%	(34.0)%
Permanent differences	9.6	13.5	7.5
State income taxes, net of federal benefit	3.7	(3.7)	(5.0)
Change in valuation reserve	(476.4)	33.6	35.7
R&D credits generated	(18.1)	(24.8)	(35.4)
FIN48 reserve	2.8	12.7	—
Change in effective deferred tax rate	25.4	4.0	—
Other adjustments	2.0	5.5	31.2
Effective income tax rate	(417.0)%	6.8%	—%
	2008	2007	2006
Current taxes	3.7%	(3.7)%	—%
Deferred taxes	1.3	10.5	—
Benefit from release of valuation reserve	(422.0)	—	—
Effective income tax rate	(417.0)%	6.8%	—%

The income tax expense for the years ended December 31, 2007 and 2006 principally relates to federal and state alternative minimum taxes and various state minimum fees.

8. Stock Options and Restricted Shares

Stock Option and Stock Award Plan

The Company has a stock option and stock award plan (the Stock Option Plan) which provides for the granting of stock options, restricted shares and stock appreciation rights to employees, directors, and consultants. Incentive

8. Stock Options and Restricted Shares (Continued)

stock options may be granted only to employees of the Company. Options which do not qualify as incentive stock options and awards of restricted shares may be granted to both employees and to non-employee directors and consultants. As of December 31, 2008, the Company had reserved 5,400,000 shares of common stock under the Stock Option Plan. Under the Stock Option Plan, stock options must be granted at an exercise price not less than the fair market value of the Company's common stock on the grant date. Prior to the initial public offering in July 2000, the Board of Directors determined the fair value of the Company's common shares underlying options by assessing the business progress of the Company as well as the market conditions for medical device companies and other external factors. Vesting requirements of all awards under this plan are time based and vary by individual grant. The options expire on the date determined by the Board of Directors but may not extend more than 10 years from the grant date. The incentive stock options generally become exercisable over a four-year period and the nonqualified stock options generally become exercisable over a two-year period. Unexercised options are canceled 90 days after termination, and unvested awards are canceled on the date of termination of employment and become available under the Stock Option Plan for future grants.

During 2006 to 2008, the Company granted stock options to its directors under the Stock Option Plan. The ten-year options issued to the Company's directors vest over a one-year period based on the continuation of service as a director of the Company. The Company uses a 0% forfeiture rate for all director options granted.

Option activity is summarized as follows:

	Shares Available for Grant (exclusive of restricted shares issued)	Plan Options Outstanding	Exercise Price	Weighted Average Exercise Price	Aggregate Intrinsic Value
Balance at December 31, 2005	1,486,000	1,715,000	\$0.78–\$12.00	\$4.83	
Shares reserved	500,000	—	—	—	
Granted	(74,000)	74,000	7.88	7.88	
Exercised	—	(198,000)	0.78– 7.48	1.73	
Forfeited	53,000	(53,000)	0.78– 9.46	8.12	
Expired	26,000	(26,000)	0.84– 9.46	7.66	
Balance at December 31, 2006	1,991,000	1,512,000	\$0.78–\$12.00	\$5.24	
Shares reserved	500,000	—	—	—	
Granted	(75,000)	75,000	9.41– 9.58	9.44	
Exercised	—	(116,000)	0.78– 9.46	2.01	
Forfeited	3,000	(3,000)	0.84– 9.46	8.27	
Expired	9,000	(9,000)	0.78– 9.46	4.24	
Balance at December 31, 2007	2,428,000	1,459,000	\$0.78–\$12.00	\$5.74	
Shares reserved	500,000	—	—	—	
Granted	(60,000)	60,000	6.36	6.36	
Exercised	—	(185,000)	0.84– 6.74	3.35	
Forfeited	5,000	(5,000)	6.74– 9.46	9.45	
Expired	83,000	(83,000)	6.74– 12.00	9.52	
Balance at December 31, 2008	2,956,000	1,246,000	\$0.78–\$11.62	\$5.84	\$4,235,000
Exercisable at December 31, 2008		1,215,000		\$5.80	\$4,182,000

The weighted average remaining contractual term of options exercisable at December 31, 2008, was 4.5 years. The total intrinsic value of options exercised during fiscal 2008, 2007 and 2006, was \$909,000, \$903,000 and \$1,163,000, respectively.

8. Stock Options and Restricted Shares (Continued)

The following table summarizes information about stock options outstanding at December 31, 2008:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Outstanding as of December 31, 2008	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Exercisable as of December 31, 2008	Weighted Average Exercise Price
\$ 0.78–\$ 0.84	299,000	4.0	\$ 0.84	299,000	\$ 0.84
0.85– 5.74	96,000	2.9	2.48	96,000	2.48
5.75– 6.00	173,000	0.9	6.00	173,000	6.00
6.01– 7.48	261,000	5.3	6.78	240,000	6.82
7.49– 9.58	301,000	6.7	9.16	295,000	9.15
9.59– 11.62	116,000	5.8	10.57	112,000	10.54
	1,246,000	4.6	\$5.84	1,215,000	\$5.80

As of December 31, 2008, there was \$25,000 of total unrecognized compensation costs related to the outstanding stock options, which is expected to be recognized over a weighted average period of 0.20 years.

The holder of a restricted share award is generally entitled at all times on and after the date of issuance of the restricted shares to exercise the rights of a shareholder of the Company, including the right to vote the shares and the right to receive dividends on the shares. During 2008, 2007 and 2006 the Company granted restricted shares to employees under the Stock Option Plan. The restricted shares vest over a four-year period based on the continuation of employment.

Restricted share activity is summarized as follows:

	Shares Outstanding	Weighted Average Grant Date Fair Value
Balance at December 31, 2005	—	\$ —
Granted	174,000	5.42
Vested	—	—
Forfeited	(15,000)	5.41
Expired	—	—
Balance at December 31, 2006	159,000	5.42
Granted	174,000	10.37
Vested	—	—
Forfeited	(20,000)	8.03
Expired	—	—
Balance at December 31, 2007	313,000	8.01
Granted	174,000	6.09
Vested	(73,000)	5.50
Forfeited	(44,000)	7.55
Expired	—	—
Balance at December 31, 2008	370,000	\$7.68

8. Stock Options and Restricted Shares (Continued)

As of December 31, 2008, there was \$891,000 of total unrecognized compensation costs related to the outstanding restricted shares, which is expected to be recognized over a weighted average period of 1.33 years. The Company estimates the forfeiture rate for restricted stock using 10% for key employees and 15% for non-key employees.

The net remaining shares available for grant under the Stock Option and Stock Award Plan is 2,586,000 shares.

Deferred Compensation

In 2008, 2007, and 2006, the Company recorded \$-0-, \$21,000 and \$12,000, respectively, of deferred compensation in connection with certain nonqualified stock options granted to medical advisory board members. The weighted average fair value of these options was \$4.23. The deferred compensation recorded was amortized ratably over the period that the options vest and was adjusted for options which have been canceled. Vesting requirements for nonqualified stock options under this plan will vary by individual grant. Deferred compensation expense was \$9,000, \$26,000 and \$31,000 for the years ended December 31, 2008, 2007, and 2006, respectively.

9. Employee Stock Purchase Plan

The Company has an Employee Stock Purchase Plan (the Purchase Plan) under which 1,900,000 shares of common stock have been reserved for issuance. Eligible employees may contribute 1% to 10% of their compensation to purchase shares of the Company's common stock at a discount of 15% of the market value at certain plan-defined dates up to a maximum of 2,000 shares per purchasing period. The Purchase Plan terminates in May 2010. In fiscal 2008, 2007 and 2006, 133,300 shares, 102,200 shares, and 88,500 shares, respectively, were issued under the Purchase Plan. At December 31, 2008, 792,000 shares were available for issuance under the Purchase Plan.

As of December 31, 2008, there was \$250,000 of total unrecognized compensation costs related to the Purchase Plan, which is expected to be recognized over a weighted average period of 0.55 years.

10. Employee Retirement Savings Plan

The Company has an employee 401(k) retirement savings plan (the Plan). The Plan provides eligible employees with an opportunity to make tax-deferred contributions into a long-term investment and savings program. All employees over the age of 21 are eligible to participate in the Plan beginning with the first quarterly open enrollment date following start of employment. The Plan allows eligible employees to contribute up to 50% of their annual compensation, subject to a maximum limit determined by the Internal Revenue Service, with the Company contributing an amount equal to 25% of the first 5% contributed to the Plan. The Company recorded an expense of \$117,000, \$144,000 and \$120,000 for contributions to the Plan for the years ended December 31, 2008, 2007, and 2006, respectively.

11. Concentrations of Credit and Other Risks

In the United States the Company sells its products directly to hospitals and clinics. In all international markets, the Company sells its products to distributors who, in turn, sell to medical clinics. Loss, termination, or ineffectiveness of distributors to effectively promote the Company's product could have a material adverse effect on the Company's financial condition and results of operations.

11. Concentrations of Credit and Other Risks (Continued)

No customer represented more than 10% of total revenue for any year ended December 31, 2008, 2007 and 2006.

The Company performs credit evaluations of its customers and does not require collateral to establish an account receivable. No customer represented more than 10% of gross accounts receivable at December 31, 2008 and 2007. There have been no material losses on customer receivables.

Product revenue by geographic destination as a percentage of total product revenues were as follows for the years ended December 31:

	2008	2007	2006
Domestic	87%	87%	88%
Foreign	13	13	12

12. Related Party Activity

During the years ended December 31, 2008, 2007 and 2006, the Company sold \$495,000, \$489,000 and \$518,000, respectively, of product to a company of which a board member of the Company is an officer. As of December 31, 2008 and 2007, the Company had an accounts receivable balance due of \$47,000 and \$72,000 from this related party.

In July 2008 the Company began utilizing the consulting services from a company owned by a board member. During the year ended December 31, 2008, the Company utilized services in the amount of \$170,000 from this vendor. At December 31, 2008, the Company had an accounts payable balance due of \$68,000 for this related party.

13. Dependence on Key Suppliers

King Pharmaceuticals

The Company purchases certain key components from single-source suppliers. Any significant component delay or interruption could require the Company to qualify new sources of supply, if available, and could have a material adverse effect on the Company's financial condition and results of operations. The Company purchases its requirements for thrombin (a component in the D-Stat products) under a Thrombin-JMI Supply Agreement entered into with King Pharmaceuticals, Inc. (King) on January 9, 2007. Under the terms of the Thrombin-JMI Supply Agreement, King agrees to manufacture and supply thrombin to the Company on a non-exclusive basis. The Thrombin-JMI Supply Agreement does not contain any minimum purchase requirements. King agrees to supply the Company with such quantity of thrombin as the Company may order at a fixed price throughout the term of the Thrombin-JMI Supply Agreement as adjusted for inflation, variations in potency and other factors. The Thrombin-JMI Supply Agreement has an initial term of 10 years, followed by successive automatic one-year extensions, subject to termination by the parties under certain circumstances, including: (i) termination by King without cause any time after the fifth anniversary of the date of the Thrombin-JMI Supply Agreement upon five years prior written notice to the Company, and (ii) termination by the Company without cause any time after the fifth anniversary of the date of the Thrombin-JMI Supply Agreement upon five years prior written notice to King provided that the Device Supply Agreement, which the Company also entered into with King on January 9, 2007, has expired on its terms or the parties have agreed to terminate it.

13. Dependence on Key Suppliers (Continued)

Sigma

On October 18, 2004, the Company entered into a supply agreement with Sigma-Aldrich Fine Chemicals, an operating division of Sigma-Aldrich, Inc. (Sigma) for the supply of thrombin to the Company. Pursuant to the terms of the Sigma agreement, the Company agreed to pay certain development costs of Sigma to allow Sigma to manufacture thrombin for the Company's needs in manufacturing its hemostatic products. The payments were based on the achievement of certain milestones over a two-year period and all payment obligations have been fulfilled. The Sigma agreement terminates after ten years and is automatically extended for up to five additional successive one-year terms unless one party delivers notice of termination at least one year prior to the scheduled termination of the Sigma agreement. During the term of the agreement, Sigma has agreed not to sell thrombin of the type developed for the Company under the agreement in or as a component of a hemostatic product for medical use. The Company does not have any minimum purchase requirements under the Sigma agreement; however, if the Company purchases less than three lots of thrombin in any year commencing in 2008, then (i) Sigma will be released from its agreement not to sell thrombin in or as a component of a hemostatic product for medical use and (ii) Sigma will have the right to terminate the agreement on 30 days' notice.

14. Commitments and Contingencies

All legal cost related to litigation are charged to operations as incurred, except settlements which are expensed when a claim is probable and estimatable.

Diomed Litigation

On March 4, 2004, the Company was named as the defendant in an intellectual property lawsuit brought by Diomed Inc. (Diomed) in the United States District Court for the District of Massachusetts (the "Court"). The complaint requested a judgment that sales of the Company's Vari-Lase[®] procedure kit and Vari-Lase laser console infringe on a single method patent (No. 6,398,777) held by Diomed and asked for relief in the form of an injunction that would prevent the Company from selling the Company's Vari-Lase products, compensatory and treble damages caused by the manufacture and sale of the Company's products, and other costs, disbursements and attorneys' fees. The trial commenced on March 12, 2007, and concluded on March 28, 2007 when the jury reached a verdict that the Company contributed to and induced infringement of Diomed's patent and awarded monetary damages in the amount of \$4,100,000, plus pre-judgment interest. To settle Diomed's claims for pre-judgment interest and for additional damages for sales not considered by the jury, the Company agreed to amend the judgment amount to \$4,975,000 and accrued this amount together with additional costs and attorney's fees as of June 30, 2007 in the aggregate amount of \$5,690,000. The jury concluded there was no willful infringement by the Company and therefore the award was not subject to treble damages or attorneys' fees. On April 12, 2007 the Company converted all Vari-Lase sales to the Company's new Vari-Lase Bright Tip[™] fiber which features a proprietary ceramic distal tip that prevents even the possibility of the vein wall contact that was the requirement of Diomed's sole patent claim in the litigation. On June 20, 2007 the Company posted a supersedeas bond and appealed the jury verdict to the U.S. Court of Appeals for the Federal Circuit in Washington, D.C. On July 2, 2007 the Court granted an injunction order that applies to endovenous laser therapy kits that were sold by the Company as of the trial date and any other kits that are not more than a mere colorable variation of such kits. Concerning the laser consoles, the injunction order applies only to Vari-Lase consoles of the type that were sold at the time of trial and that are not more than a mere colorable variation of such consoles and that are sold for use with the kits that are subject to the injunction. On July 11, 2007, Diomed moved for a finding that the Company's continued sale of laser consoles was in violation of the injunction. The Company filed a response to the

14. Commitments and Contingencies (Continued)

motion and requested a hearing on the matter. On January 15, 2008, the Court denied Diomed's contempt motion and ruled that the Company's sale of laser consoles did not violate the injunction. On April 8, 2008, the Company announced that it entered into a settlement agreement with Diomed. Pursuant to the settlement agreement, (i) on April 29, 2008, the Company made a one-time payment of \$3,586,000 to Diomed, (ii) the Company and Diomed jointly dismissed the appeal with the U.S. Court of Appeals for the Federal Circuit, and (iii) Diomed provided to the Company a satisfaction of judgment, releasing the Company from the monetary obligations of the judgment imposed by the Court in its entirety.

Marine Polymer Technologies, Inc.

On May 11, 2005 the Company initiated a lawsuit for product disparagement and false advertising against Marine Polymer Technologies, Inc., a Delaware corporation (Marine Polymer). In the lawsuit, the Company alleged that Marine Polymer made defamatory and disparaging statements concerning the Company's D-Stat[®] Dry hemostatic bandage. The Company sought relief in the form of an injunction to enjoin Marine Polymer from continuing to defame and disparage the Company's products, damages as a result of such statements, and other costs, disbursements and attorneys' fees. Marine Polymer brought a counter-claim against the Company including, among other claims, business defamation and product disparagement for statements allegedly made by the Company concerning Marine Polymer's SyvekPatch[®]. Marine Polymer sought relief in the form of monetary damages, costs, disbursements and attorneys' fees. The trial commenced on March 24, 2008 in the United States District Court for the District of Massachusetts. At the conclusion of the trial on April 7, 2008 the jury returned a verdict in favor of the Company and against Marine Polymer for product disparagement concerning statements made regarding the safety of the Company's D-Stat Dry hemostat product. In its verdict, the jury found that Marine Polymer's statements were false and disparaged the D-Stat Dry product and awarded the Company \$4,500,000 in monetary damages. The jury rejected Marine Polymer's counterclaims in their entirety. Following post trial motions, on June 30, 2008, the Court upheld the jury verdict, granted the Company's request for a permanent injunction against Marine Polymer for the statements that the jury found were false, and added prejudgment interest on the jury verdict award in the amount of \$592,124. On July 14, 2008, Marine Polymer filed a Notice of Appeal with the U.S. First Circuit Court of Appeals seeking to overturn the monetary damages and injunction issued against them. Oral argument on Marine Polymer's appeal is scheduled to be held on February 4, 2009. Marine Polymer is not appealing the Court's rejection of its counter claims.

VNUS[®] Medical Technologies Litigation

On October 13, 2005, the Company was named as one of three defendants in an intellectual property lawsuit brought by VNUS[®] Medical Technologies, Inc. (VNUS) in the United States District Court for the Northern District of California. The complaint requested a judgment that the Company's Vari-Lase procedure kit and Vari-Lase laser console infringe on four patents held by VNUS and asked for relief in the form of an injunction that would prevent the Company from selling the Company's Vari-Lase products, compensatory and treble damages caused by the manufacture and sale of these products, and other costs, disbursements and attorneys' fees. VNUS subsequently indicated that it was not pursuing its allegation of infringement concerning one of the four patents. On June 2, 2008, the Company entered into a settlement agreement with VNUS for the purpose of resolving the lawsuit. Under the terms of the settlement agreement, (i) on June 4, 2008, the Company paid VNUS a royalty payment in the aggregate amount of \$3,116,000 related to all Vari-Lase[®] products shipped within the United States through the end of the first quarter of 2008, (ii) the Company agreed to pay a quarterly royalty on all on-going U.S. shipments of Vari-Lase laser and kit products payable quarterly during the remaining life of the applicable patents, (iii) VNUS granted the Company a non-exclusive and non-sublicensable license to the applicable patents for use in endovenous laser therapy, and (iv) all litigation between the parties was dismissed.

14. Commitments and Contingencies (Continued)

From time to time, the Company is involved in legal proceedings arising in the normal course of business. As of the date of this report the Company is not a party to any legal proceeding not described in this section in which an adverse outcome would reasonably be expected to have a material adverse effect on the Company's results of operations or financial condition.

King Agreements

On January 9, 2007, the Company entered into three separate agreements with King: a License Agreement, a Device Supply Agreement and a Thrombin-JMI® Supply Agreement. Under the License Agreement, the Company licensed the exclusive rights to the Company's products Thrombi-Pad, Thrombi-Gel and Thrombi-Paste to King in exchange for a one-time license fee of \$6,000,000. Under the Device Supply Agreement, the Company agreed to manufacture the licensed products for sale to King in exchange for two separate \$1,000,000 milestone payments; one upon the first commercial sale of Thrombi-Gel (which was received on May 31, 2007), and one upon the first commercial sale of Thrombi-Paste. The Company is amortizing the \$6,000,000 license fee on a straight-line basis over 10 years. The Company is amortizing the \$1,000,000 milestone payment that was received on May 31, 2007 over the remaining 10-year license period and will amortize the additional \$1,000,000 milestone payment over the remaining 10-year license period when it is received. The unamortized license fee was \$5,649,000 and \$6,353,000 at December 31, 2008 and 2007, respectively. The amortization of license fee was \$704,000 and \$647,000 for the years ended December 31, 2008 and 2007, respectively.

Under the Device Supply Agreement the Company agreed to pursue a surgical indication for the use of the Thrombi-Gel and Thrombi-Paste products from the FDA. The Device Supply Agreement requires the Company to make a one-time payment of \$2,500,000 to King if the FDA does not approve the surgical indication of Thrombi-Gel and a one-time payment of \$2,500,000 to King if the FDA does not approve the surgical indication of Thrombi-Paste after performing a clinical study and submitting the application. The Company believes the probability of paying these one-time payments to King is remote, and therefore has not recorded any provision for these payments.

Nicolai, GmbH Agreement

Effective April 1, 2008 the Company entered into a five-year distribution agreement with Nicolai, GmbH. As a result of entering into this distribution agreement, the Company no longer maintains a direct sales force in Germany. In connection with this distribution agreement, the Company received four installment payments of 125,000 Euros from Nicolai, GmbH. The first of these four installment payments was due upon execution of the agreement and was received on March 14, 2008. The second installment payment was earned on June 30, 2008 and was received by the Company on July 9, 2008. The third installment payment was earned on September 30, 2008 and was received by the Company on October 3, 2008. The fourth and final installment payment was earned and received on December 31, 2008. The installment payments are deferred and recognized ratably over the five-year term of the distribution agreement. The agreement also includes provisions requiring the Company to pay Nicolai, GmbH specific amounts if the Company terminates the distribution agreement prior to the end of the five-year term. The Company does not intend to terminate the distribution agreement and, as such, has not recorded a liability relating to these potential future payments to Nicolai, GmbH. The unamortized license fee was \$617,000 at December 31, 2008. The amortization of license fee was \$114,000 for the year ended December 31, 2008.

15. Quarterly Financial Data (Unaudited, in Thousands, Except per Share Data)

2008	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
Revenue:				
Product	\$16,059	\$15,089	\$14,872	\$13,737
License and collaboration	345	376	366	377
Total revenue	16,404	15,465	15,238	14,114
Selected costs and expenses:				
Product	5,619	5,130	5,360	4,581
Collaboration	126	138	187	181
Total selected costs and expenses:	5,745	5,268	5,547	4,762
Operating income (loss)	1,457	1,748	(444)	254
Net income (loss)	14,684	1,722	(468)	235
Basic net income (loss) per share	\$0.93	\$0.11	\$(0.03)	\$0.02
Diluted net income (loss) per share	\$0.90	\$0.11	\$(0.03)	\$0.01
2007				
Revenue:				
Product	\$13,797	\$12,529	\$12,934	\$12,154
License and collaboration	559	597	294	—
Total revenue	14,356	13,126	13,228	12,154
Selected costs and expenses:				
Product	4,497	4,187	4,389	3,929
Collaboration	327	358	—	—
Total selected costs and expenses:	4,824	4,545	4,389	3,929
Operating income (loss)	544	(6)	660	(5,524)
Net income (loss)	518	15	695	(5,534)
Basic net income (loss) per share	\$0.03	\$0.00	\$0.05	\$(0.37)
Diluted net income (loss) per share	\$0.03	\$0.00	\$0.04	\$(0.37)

"In 2009 we expect to continue to substantially increase our net revenue to between \$70 and \$72 million, with our new product introductions providing a significant upside to this projection."

a 36% increase over 2007. Our new low profile, or LP, version of the Pronto catheter was added to our product line in 2008, with additional versions expected to be added in 2009. A growing body of clinical literature documenting the benefit of performing aspiration in ST-elevated myocardial infarction has resulted in growth of the market for aspiration catheters and was an important driver of our extraction catheter sales growth in 2008.

Our third major product line for 2008 was our vein products, primarily the Vari-Lase endovenous laser therapy products for treating varicose veins. Net sales of vein products in 2008 were \$10.0 million, a 16% increase over 2007. During 2008 we settled both of our outstanding pieces of litigation related to the vein product line, which allowed us to focus solely on growing sales and adding new products. In addition, the bankruptcy of our largest competitor in the endovenous laser space in 2008 presented new opportunities for our Vari-Lase products, on which we expect to capitalize in 2009.

Access products represented our fourth largest product category in 2008, with \$5.6 million in sales, a 99% increase over 2007. We added a line of retrieval snares to our access products in 2008 under a distribution agreement with Radius Medical Technologies. We also added new versions of guidewires and introducer sheaths. We expect several new access products to launch in 2009 from both internally developed projects and distribution opportunities that we expect will allow us to continue our substantial sales growth with this product line.

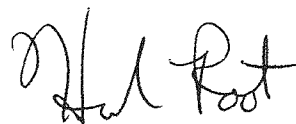
Finally, sales of our specialty catheter product line increased 36% in 2008 to \$4.6 million. Most of our ideas for new specialty catheters come from physicians who request products that the larger companies in our markets generally will not develop due to market size. Vascular Solutions'

business, however, is built around these niche opportunities that continue to be presented to us as our sales force interacts with our physician customers every day. In the first quarter of 2009, we launched our newest specialty catheter, the Minnie support catheter, which we believe will be a material addition to our net sales of specialty catheters in 2009.

Overall, in 2009 we expect to continue to substantially increase our net revenue to between \$70 and \$72 million, with our new product introductions providing a significant upside to this projection. Longer term, we continue to believe in our often stated goal of achieving over \$100 million in annualized sales by the end of 2010 with our current products and products we expect to launch this year.

From where we were five years ago, it is very rewarding to be where we are today. As we enter 2009, Vascular Solutions is a growing, profitable, cash flow positive company developing new products that advance medical procedures. We expect to add to our product line, our employment, our manufacturing facilities and our profit in 2009. I am hopeful that our stock price also will continue to reflect the outstanding progress we are making with our business.

Thank you for your continued support,



Howard Root
Chief Executive Officer
February 12, 2009



Financial Highlights

Statements of Operations Data

(in thousands)

Year Ended December 31,

	2008	2007	2006	2005	2004
Net revenue	\$61,221	\$52,864	\$43,310	\$32,786	\$22,414
Product margin	65.4%	66.9%	67.1%	71.4%	69.9%
Operating expenses	\$36,032	\$34,388	\$30,758	\$24,124	\$19,233
% of net revenue	58.9%	65.0%	71.0%	73.6%	85.8%
Litigation expenses	\$1,484	\$5,800	—	—	—
% of net revenue	2.4%	11.0%	—	—	—
Income tax benefit (expense)	13,045	(276)	—	—	—
Net income (loss)	16,173	(4,306)	(1,786)	(561)	(3,508)

Balance Sheet Data

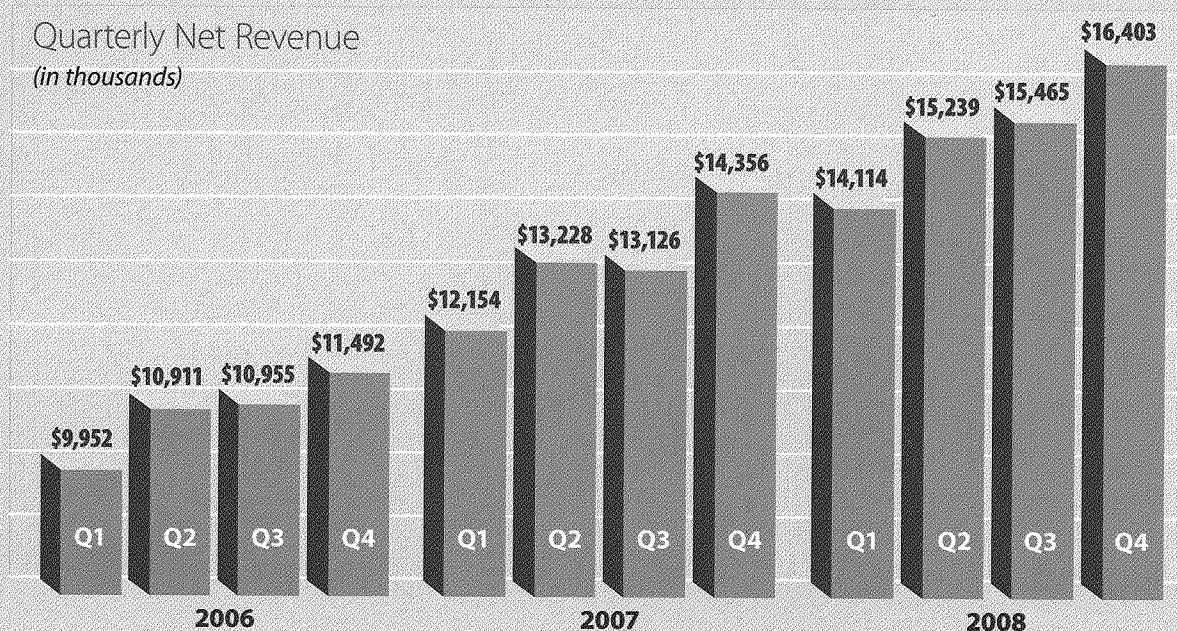
(in thousands)

December 31,

	2008	2007
Cash and cash equivalents (includes restricted cash)	\$7,209	\$10,759
Total assets	\$44,180	\$31,278
Total debt	—	\$867
Shareholder's equity	\$31,826	\$12,825
Total shares outstanding	16,028	15,606

Quarterly Net Revenue

(in thousands)



Corporate Information

Board of Directors

Michael Kopp

Medical Device Industry Consultant

Richard Nigon

Vice President
Cedar Point Capital, Inc.

Paul O'Connell

President
B. Braun Interventional Systems, Inc.

John Erb

Chief Executive Officer
Cardia Access, Inc.

Jorge Saucedo, M.D.

Professor of Medicine
University of Oklahoma
Health Sciences Center

Charmaine Sutton

President
The Tamarack Group – MPLS, INC

Howard Root

Chief Executive Officer
Vascular Solutions, Inc.

Investor Relations

James Hennen

Chief Financial Officer
Telephone: 763.656.4300
E-mail: jhennen@vascularsolutions.com

Transfer Agent and Registrar

Wells Fargo Bank, N.A.

Shareowner Services
161 North Concord Exchange Street
South Saint Paul, Minnesota 55075
Telephone: 800.468.9716

Independent Auditors

Virchow, Krause & Company, LLP

Minneapolis, Minnesota

Legal Counsel

Dorsey & Whitney, LLP

Minneapolis, Minnesota

Executive Officers

Howard Root

Chief Executive Officer

James Hennen

Vice President, Finance,
Chief Financial Officer and Secretary

Susan Christian

Vice President, Sales Operations

William Rutstein

Vice President, International Sales

Brett Demchuk

Vice President, Quality

James Quackenbush

Vice President, Manufacturing

Annual Meeting

The Company's Annual Meeting of Shareholders will be held on Tuesday, April 21, 2009, 3:30pm at:

Radisson Hotel and Convention Center
3131 Campus Drive
Plymouth, Minnesota 55441

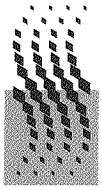
Additional Information

A copy of Vascular Solutions' filings with the Securities and Exchange Commission are available upon request by contacting Investor Relations or by accessing our website at www.vascularsolutions.com.

Stock Exchange Listing

NASDAQ National Market System
Symbol: **VASC**





Vascular
SOLUTIONS

Vascular Solutions, Inc.

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Minneapolis, Minnesota 55369

763.656.4300

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